

Appendix 8.5-B2

DEIS Comments, Other Public Agencies



Paul J. Nicoletti
City Manager

City of Stuart

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November 25, 2014

Via U.S. Priority Mail and Email: AAF_comments@vhb.com

Mr. John Winkle
Federal Railroad Administration
1200 New Jersey Avenue, SE
Room W38-311
Washington, D.C. 20590

Ref: All Aboard Florida – Orlando to Miami, Florida Intercity Passenger Rail Project
Comments of the City of Stuart, Florida to the Draft Environmental Impact Statement

Dear Mr. Winkle:

Attached please find the above stated comments, which were unanimously (4-0-1 absent) approved by the Stuart City Commission on November 24, 2014.

These comments transmit the concerns and observations of the City government concerning this proposed Project. However, as information continues to develop, the City respectfully requests the opportunity to supplement these comments, as may be permitted by law.

Thank you for your consideration.

Very truly yours,

PAUL J. NICOLETTI
City Manager

~With a copy to all those shown on the next page~

November 25, 2014

Mr. John Winkle, Federal Railroad Administration

Ref: All Aboard Florida – Orlando to Miami, Florida Intercity Passenger Rail Project
Comments of the City of Stuart, Florida to the Draft Environmental Impact Statement

cc: Hon. Marco Rubio, U.S. Senator
Hon. Bill Nelson, U.S. Senator
Hon. Patrick Murphy, U.S. Congressman
Hon. Rick Scott, Governor, State of Florida
Hon. Joe Negron, Senator, State of Florida
Hon. Gayle Harrell, Representative, State of Florida
Ananth Prasad, PE, Secretary, Florida Department of Transportation
Jim Wolfe, PE, Secretary, District Four, Florida Department of Transportation
Hon. Peter O'Bryan, Chair, Treasure Coast Regional Planning Council
Michael J. Busha, AICP, Executive Director, Treasure Coast Regional Planning Council
Hon. Tom Bausch, Chair, Martin County Metropolitan Planning Organization
Beth Beltran, MPO Administrator, Martin County Metropolitan Planning Organization
Hon. Ed Fielding, Chairman, Martin County Board of County Commissioners
Taryn Kryzda, CPM, Martin County Administrator
Hon. Paul Lugar, Mayor, Town of Sewalls Point
Pamela Mac'Kie Walker, Esq., Sewall's Point Town Manager
Hon. Harry Charlston, Town of Jupiter Island
Gene Rauth, P.E., Jupiter Island Town Manager
Hon. David Myers, Mayor, Town of Ocean Breeze
Hon. Ann Kagdis, President, Ocean Breeze Town Council
Terrance W. O'Neil, MPA, Ocean Breeze Town Manager
Mr. Vincent Signorello, President and CEO, Florida East Coast Industries, LLC
Mr. Seth Waugh, Vice Chairman, East Coast Industries, LLC
Mr. Hussein Cumber, Executive Vice President, Florida East Coast Industries, LLC
Mr. P. Michael Reininger, President, All Aboard Florida
Mr. Rusty Roberts, Vice President, All Aboard Florida
Sam Amerson, PE, Stuart Director of Public Works



This is a review of the All Aboard Florida (AAF) Project Draft Environmental Impact Statement (DEIS) released on or about September 19, 2014 by the Federal Railroad Administration. The review is provided by the City of Stuart, Florida, and the comments included were approved by the Stuart City Commission on November 24, 2014.

- 1. Section 3.3.3.6 – Positive Train Control (PTC) System:** There is no discussion in the DEIS regarding the location or possible adverse effects to the City of Stuart or Martin County of any radio towers or monopoles required to be placed along the FECR right of way to accomplish the federally required “Positive Train Control,” or to provide a Wi-Fi amenity for train passengers.
- 2. Section 4.1.1.2 – Existing Land Use:** The City of Stuart is not recognized in this section of the DEIS as an “incorporated municipality,” nor are the existing land uses of residential, commercial, industrial and mixed-use considered.
- 3. Section 4.1.2 – Transportation:** Under Subsection 4.1.2.5, Local Roadway Network, and Subsection 4.1.2.6, At-Grade Crossings, the DEIS essentially omits any known impacts to local roadways caused by the addition of 32 trains each day within the City of Stuart or Martin County. With Martin Health System’s major medical center facility east of the FEC right of way at approximately Mile Post 260, the DEIS fails to recognize any impact related to time delays or traffic delays associated with its proposed project.
 - a) To date, AAF has only submitted “30% complete” plans for Roadway Crossings only.** As a result, it is impossible to accurately comment on the potential adverse effects of the roadway crossings or proposed construction within the FECR right of way, because the crossings and FECR right of way drawings are



not complete. Of particular concern is the need for a pedestrian or multi-modal path crossing at each and every roadway crossing within the City.

- b) AAF and FECR should be required to provide completely “sealed corridor” crossings within the City of Stuart, as a means of assuring the safe transit of 70-110 mph+ trains and vehicles at crossings. Based upon the combined use of the FECR tracks for both passenger and freight trains, public safety should be paramount, and the provision of “sealed corridors” by AAF should be the minimum required by the FRA.
 - c) AAF and FECR should be required to renegotiate completely new “Crossing Agreements” that recognize and include provisions for the increased costs associated with the double-tracking and “sealed corridor” aspects of the Agreements. Federal funding should be provided to offset the local costs caused by the crossing maintenance expenses.
4. **Section 4.1.2.3 – Local Transit Service:** In the discussion on local transit, there is no consideration given to the City of Stuart’s micro-transit system of downtown “courtesy trams,” which routinely cross the FECR at Colorado Avenue and St. Lucie Avenue throughout the day and evening. Similarly, there is no discussion or recognition regarding Martin County’s Transit system, or the Treasure Coast (bus) Connector with St. Lucie County.
5. **Section 4.1.3 – Navigation:** The adverse effects of 32 additional train crossings on a single-tracked trestle bridge built in 1925 are not clearly or fully recognized, stated, or considered in the DEIS.
- a) The DEIS shows an average daily vessel count of 157 vessels passing through the draw span at Mile Post 260.93 along the St. Lucie River. Actual counts of vessels by the Martin County Engineering Department show a count of 243 vessels per day.
 - b) It has been learned by the Martin Metropolitan Planning Organization (MPO) that there are no publicly reported inspection records for the trestle bridge over the St. Lucie River, indicating that neither the FRA nor the FDOT has any public record of the condition of this 90 year old bridge.
 - c) The existing bridge and trackage in its original 1925 configuration with a proposed 32 additional trains crossing the span each day for a potential of over 50 freight and passenger trains per day has not been adequately considered in the DEIS. A comprehensive study of the need to replace the bridge or



construct a tunnel under the St. Lucie River should be considered and required by the FRA and USCG.

- d) **Stacking:** The All Aboard Florida AMEC model video presentation indicates that boats will “stack” in a single file manner while waiting for the bridge. However, the tidal currents do not flow in a perpendicular manner to the bridge. The channel through which boats must pass to go under the railroad bridge runs in a diagonal path to the river and as a result when boats are attempting to wait for the bridge when it is down, simply adjusting the throttle from forward to reverse will not control the boat because of the sheering effect of the current. The current pulls the boats in a diagonal direction which cannot be controlled by the throttle. If there are multiple boats in a stacking position it will be impossible to respond to the current properly. In addition, when there is a northeast wind which is the “prevailing wind” in the area, with an outgoing current, the operators of the vessels will have a very difficult time engaging the current as it cannot readily be observed.
- e) **Navigation:** The Okeechobee Waterway is regularly used as a barge and transport channel for the marine industry. Included in this most frequently, is the movement of construction barges. According to the Ferrara Group, (a \$4,000,000 per year industrial marine construction business located on the South Fork of the St. Lucie River). They regularly move marine barges under the US1 Roosevelt Bridge, through the State Road 707 Bridge, and the FECR trestle bridge. Unfortunately, the boats that push these barges are somewhat difficult to operate and slow to react, and are not able to stack at the bridge while waiting for the trestle to go up or down. In addition, when it has been determined the trestle bridge is going to be lowered, a tug boat is required to begin its stopping procedure as far away as Frasier Creek, to be able to stop prior to impacting the bridge. Once the bridge re-opens it can take in excess of 30 minutes for the barge to resume navigable speed and clear the trestle bridge. Therefore, if the gaps between openings are less than 30 minutes it will be impossible for these barges to navigate the opening.
- f) **Open Span Width:** The width of the trestle bridge opening is very narrow (40 feet). The model video contemplates boats passing in both directions in an expeditious manner. This will be impossible as large fishing boats cannot pass in both directions at the same time. This will become very complicated when multiple boats are “staging” on either side of the opening during closures. If a barge is attempting to navigate the opening during a limited time, all other



boats will have to wait. But they can't just "stack" and wait for the barge to pass as they will be in the way. It is imperative that this opening is widened.

- g) The FRA and FDOT should require a double-tracked trestle, and a much wider clear span opening as broad based safety and convenience measures for marine and vehicular uses.
- h) The DEIS does not take into account the designation of the St. Lucie River as an Emerging Strategic Intermodal System (SIS) facility.
- i) The DEIS does not take into account the federal designation of the St. Lucie River channel in the area of the trestle bridge at Mile Post 260.93 as the "Okeechobee Waterway," which regardless of the SIS designation, is nonetheless the cross-Florida navigable link for vessels going from the Gulf of Mexico to the Atlantic Intracoastal Waterway, or the Atlantic Ocean. Sec. 33 CFR 117.317 *Okeechobee Waterway* currently designates the railroad bridge at Stuart as "not constantly tended" and "normally in the fully open position." 33 CFR 117.8 *Permanent changes to drawbridge operation*, requires that anyone seeking to change the operation of a drawbridge must first submit letter of request to the Coast Guard's District Commander supporting or justifying the requested change. If the District Commander decides that a change is warranted, he or she will begin rulemaking to implement the change. The DEIS provides no indication that a request to permanently change drawbridge operations at Stuart has been submitted to the Coast Guard nor is there any discussion of whether such a request is likely to be granted.

- 6. **Section 4.2.2.1 – Noise and Section 4.2.2.2 - Vibration:** While there is an extensive section on "noise," the effects are considered in a very broad and conclusory way. For instance, most of the data is at the county level. Within the City of Stuart, the FECR right of way bisects the historic downtown for about 4000 feet, with many buildings within the 150 foot Area of Potential Effects (APE), and yet there is no investigation shown, or consideration given, to any adverse effects attributable to additional noise, especially in the early morning and late evening time frames. The same condition is true for vibration. Vibration is currently experienced with the existing freight service. Along Dixie Highway south of the downtown for about 2 miles to Monterey Road there are single family residences on the east side of the railroad right of way. North of the St. Lucie River trestle bridge, at about Mile Post 260.3, there are 200 multifamily units (Harborage



Condominium) immediately adjacent to the railroad right of way. At Stuart City Hall, 121 SW Flagler Avenue, Stuart, FL 34994, on most days, vibration is noticeable and can be felt, when freight trains pass by within 150 feet of City Hall. It is typical to watch “ripples” in a cups of coffee or water on desks in City Hall as trains go by. With the addition of 32 additional trains, AAF has not proposed any noise or vibration mitigation measures in the Stuart area. The only discussion of vibration in the DEIS for the N-S Corridor has to do with farmland (see page 4-47).

7. **Section 4.3 – Natural Environment and Section 4.3.1 – Water Resources:** In Table 4.3.1-2 Surface Waters Classifications and Impairments in the N-S Corridor, there is no mention of the St. Lucie River. Failing to include it may not affect the outcome of the study. Rather it shows a lack of thoroughness and accuracy. In Table 4.3.4-2 Floodway Crossings within the Project Study Area, it inaccurately describes the St. Lucie River as being in Palm Beach County (see page 4-77).
8. **Section 4.4.1 - Communities and Demographics:** The City of Stuart, and all of Martin County have been excluded from consideration and analysis in the DEIS. There is no specific review of the City of Stuart or Martin County included in the review. In Sections 4.4.1.1 and 4.4.1.2, the City of Stuart is not even mentioned as a municipality in which the FECR is located, and neither the City of Stuart, nor Martin County, is included in Table 4.4.1-1. The City of Stuart has federal Census Tracts which are designated as Low to Moderate Income” (LMI) tracts in the East Stuart, Eldorado Heights and Woodlawn Park neighborhoods. As a result they may be disproportionately affected by the expansion of service by AAF along the FECR right of way. No consideration or investigation has been made in the DEIS of this issue.
9. **Section 4.4.2 - Environmental Justice:** All Aboard Florida (AAF) may disproportionately impact the safety of Stuart’s low income and minority populations, particularly at grade crossings in East Stuart.
 - a) East Stuart is in the Community Redevelopment Area (CRA) of the City, and includes low income and significant minority populations. J.D. Parker Elementary School is a federal Title I school in East Stuart, which has a 75.56% ratio of Free and Reduced Lunch recipients.



- b) A “sealed corridor,” necessary for 110 mph trains, would direct pedestrians to grade crossings that are unsafe for walking. An “unsealed corridor” would be particularly hazardous for the East Stuart CRA community members who often walk across the tracks, rather than walk or bicycle to a roadway crossing. Many Stuart CRA residents do not own automobiles, and are forced to walk or bicycle as their primary means of transportation. The same could be said of remaining Martin County CRAs, including but not limited to the Rio CRA, the Golden Gate CRA and the Hobe Sound CRA areas, which lie on either side of the FECR tracks. This issue could easily lead to charges of discriminatory practices by AAF and FECR, and therefore should be mediated and remedied.
 - c) Stuart and Martin County were not considered or included in the analysis sections of the DEIS for the AAF Project; specifically in Sections 4.4.1 Communities and Demographics, and 4.4.1.2 Affected Environment.
- 10. Section 4.4.3. - Economic Conditions:** All Aboard Florida (AAF) may disproportionately impact the labor force and general employment patterns in the City of Stuart, particularly in and around the historic downtown, and the industrial areas to the south of the downtown.
- a) Built around the FEC Railway, beginning in 1894, the City of Stuart’s major employers are Martin Health System (Martin Memorial Medical Center) and the Martin County School Board. Each of these facilities are located east of the FEC corridor, while the populations centers where their workers reside are west and north for the FEC corridor, meaning that multiple crossings will be necessary for those healthcare and school workers, each day. The economic impact of the AAF project on the City of Stuart has not been taken into consideration.
 - b) The DEIS acknowledges the \$90 million annual boating industry impact in Martin County, but then makes no conclusion as to the impact of AAF on that industry. In light of the fact that no significant physical improvements are proposed for the 1925 St. Lucie River trestle bridge, the DEIS should study those effects in exhaustive detail.
 - c) The City of Stuart has a growing boating and eco-tourism industry focused on the St. Lucie River and the Indian River Lagoon. As the “Sailfish Capital of the World,” Stuart prides itself in developing capacity for the tourism industry. Additional marinas, and marina slips, a mooring field, a hotel, additional restaurants, and other amenities around the St. Lucie River could be severely



affected by a 1925 trestle bridge that is in the “down” position for as much as 9 hours per day.

- d) The City of Stuart is relying upon the written promise by AAF and FECI not to adversely affect or remove the vehicular parking (leased by the City from FECI) within the historic downtown of Stuart. However, there is no mention of this in the DEIS.

11. Section 4.4.4 - Public Health and Safety: All Aboard Florida could have significant safety issues for the City of Stuart, including, but not limited to, a lack of pedestrian and bicycle at-grade crossings, and a lack of FRA Class 6 trackage within the City of Stuart, lack of fencing along the FEC right of way, (except as already placed by the City of Stuart with a lease from FEC), and of course, the physical condition of the historic trestle bridge, built in 1925, which crosses the St. Lucie River with a lowered (bottom) elevation of +7 feet MSL.

- a) It has been revealed by FECR that there are no publicly reported inspection records for the 1925 trestle bridge over the St. Lucie River, indicating the FRA and FDOT have no public record of the physical condition of this 90 year old bridge. So, issues of metal fatigue, concrete pier spalling, or wood rot, are all unknown to the public.
- b) As a “first responder” to emergencies, the City of Stuart is concerned about its responsibilities in the event a train wreck occurs along the FECR right of way within the downtown or on the 1925 St. Lucie River trestle bridge.

12. Section 4.4.5 – Cultural Resources: The AAF project will have adverse effects on the cultural resources of the City of Stuart:

- a) As defined in Section 4.4.5, and as noted in Table 4.4.5-10, the Florida East Coast Railway trestle bridge across the St. Lucie River at MP 260.93 (built in 1925, not 1938 as stated) is itself a historic structure which should be considered for preservation or replacement as part of the Environmental Impact process.
- b) In Section 4.4.5-2 Designated Cultural Resources, the City of Stuart, which celebrated its Centennial in 2014, was not consulted regarding its historic resources. The FECR tracks run through the historic downtown for approximately 4,000 linear feet. Historic structures within that area include:



The Lyric Theater (c. 1926 & Nat'l Register of Historic Places)
59 SW Flagler Avenue
Stuart, Florida 34994

Parks-Atwood House (c. 1903)
151 SW Flagler Avenue
Stuart, Florida 34994

Geo. W. Parks General Merchandise Store (c.1901) now the
Stuart Heritage Museum
161 SW Flagler Avenue
Stuart, Florida 34994

Feroe Building (c. 1913)
73 SW Flagler Avenue
Stuart, Florida 34994

East Coast Lumber & Supply Co. (c. 1902)
416 SE Flagler Avenue
Stuart, Florida 34994

Woodmen Hall (c. 1914)
217 SW Akron Avenue
Stuart, Florida 34994

There are other significant historic places and structures in the City of Stuart that upon additional investigation can and should be cataloged, in addition to those shown in Appendix 4.4.5.B3. With the exception of Woodmen Hall which is approximately 300 feet, each of the other buildings mentioned above is a scant 100 feet away from the FECR right of way, that is, within the Area of Potential Effect (APE), which also means the preparer of the DEIS did not follow its own Methodology as stated in Section 4.4.5.1. Notwithstanding the "consultation" process described on page 4-124 of the DEIS, no one discussed potential impacts with the City of Stuart.



- c) The DEIS cites some historic sites in the N-S Corridor, but fails to specifically discuss any in Martin County. This is incredulous, and requires additional investigation and consideration. There are historic structures and places, in Jensen Beach, Golden Gate, Port Salerno, Hobe Sound, and Jonathan Dickerson State Park, all of which should be investigated and considered for adverse impact effects. Additionally, other jurisdictions were consulted, as shown in Table 4.4.5-2; however, none of the consulted jurisdictions were in Martin County.
13. **Section 4.4.8.2 - Affected Environment:** The City of Stuart has water, reclaimed water, and sewer transmission lines which cross the FECR right of way from about MP 260 to MP 259, under agreement with FEC. These are not mentioned in the DEIS, and could be impacted by railroad construction.
- a) There is no discussion in the DEIS of the current environmental condition of the FECR right of way. For instance, historically, railroad rights of way across the nation have had increased levels of arsenic and asbestos, primarily because of brake shoes used in earlier times. In addition, older passenger trains would dump human waste directly on the tracks. Also, over the years, there have likely been petrochemical spills on the FECR right of way. Upon reading the DEIS, there is no base line shown for any environmental issues related to prior use.
14. **Table 5.1.3-3 -Summary of Projected Bridge Operations for the St. Lucie River Bridge:** This table shows an increase in closure time, and therefore an impedance to navigation, of an additional 3.2 hours per day (average) during the week and 4 additional hours per day (average) on weekends. This is calculated using an additional 24 closures per day. Under the mitigation measures discussed below under Sec. 7.2.2, the City of Stuart urges a more meaningful mitigation of bridge related issues, including a replacement of the existing 1925 bridge with an increased open span width or a tunnel crossing of the St. Lucie River as an Emerging SIS (Okeechobee Waterway).
15. **Section 5.3.5.5 - Essential Fish Habitat:** Under any of the proposed scenarios, that is, "No Action" or "Alternatives A, C or E," the DEIS fails to consider any impacts at the St. Lucie River. However, during the rehabilitation phase of bridge construction over the St. Lucie River, it is



likely that temporary impacts to fish (and other marine wildlife) will occur. These impacts should be studied, known, and considered.

16. **Table 5.3.6-1 Alternative A - Direct Effects to Potential Protected Wildlife Species Habitat (acres):** This table indicates that no federally protected Florida Scrub-Jay habitat lies within the N-S Corridor (0 acres). Martin County, including the City of Stuart, has miles of Florida Scrub Jay habitat bordering or bisected by the FECR right of way. This impact should be studied and considered. The same situation exists along the FECR right of way for the Florida protected Gopher Tortoise (0 acres). USACE should review and amend its specific findings accordingly in Appendix 5.3.6-B.
17. **Table 5.3.6-2 - Alternative C - Direct Effects to Potential Protected Wildlife Species Habitat (acres):** This table also indicates that no federally protected Florida Scrub-Jay habitat lies within the N-S Corridor (0 acres). Martin County, including the City of Stuart, has miles of Florida Scrub Jay habitat bordering or bisected by the FECR right of way. This impact should be studied and considered. The same situation exists along the FECR right of way for the Florida protected Gopher Tortoise (0 acres). USACE should review and amend its specific findings accordingly in Appendix 5.3.6-B.
18. **Table 5.3.6-3 - Alternative E - Direct Effects to Potential Protected Wildlife Species Habitat (acres):** This table also indicates that no federally protected Florida Scrub-Jay habitat lies within the N-S Corridor (0 acres). Martin County, including the City of Stuart, has miles of Florida Scrub Jay habitat bordering or bisected by the FECR right of way. This impact should be studied and considered. The same situation exists along the FECR right of way for the Florida protected Gopher Tortoise (0 acres). Accordingly, USACE should review and amend its specific findings in Appendix 5.3.6-B. While none or little of the existing FECR right of way has these habitats within the FECR right of way, the fact that the habitats are immediately adjacent and no consideration is given to habitat culverts or other wildlife transit methods are considered or proposed.
19. **Section 5.4.2 - Environmental Justice and Section 5.4.3 - Economic Conditions:** Within the N-S Corridor, the DEIS concludes, "The Project would result in vibration impacts to 3,317 residential parcels along the N-S



Corridor, 820 (24.7 percent) of which are within environmental justice communities. All vibration impacts (including those within environmental justice communities) would be mitigated using ballast mats beneath rail lines, “frogs” at selected switch locations with nearby sensitive receptors, and special pile-driving methods at selected locations near sensitive receptors during construction. There would be no disproportionate adverse impacts from vibration in environmental justice communities along the N-S Corridor with the implementation of these measures.” (page 5-126, DEIS). There is no consideration given to the environmental justice (economic) effects of increasing the number of trains per day (32 trains). It is likely that property values will decrease for some extended period of time due to the impact. This economic impact should be studied and considered.

20. **Section 5.4.4.2 - Environmental Consequences:** The detrimental effects on public safety due to the increased number and speed of daily train-roadway crossings proposed should be further considered. The City of Stuart continues to express its concern that in urban areas, such as the City of Stuart, a completely “sealed corridor” is necessary to provide for the safety of pedestrians, animals, vehicle drivers, and train passengers, from the inherent conflicts and hazards posed by 32 additional train-roadway crossings per day. This section is written in a conclusory manner, without adequate data shown.
 - a) The City proposes that upon receipt of “90% complete” drawings from AAF, a new, more complete environmental study be completed to look specifically at the possible adverse impacts upon the City of Stuart.
21. **Section 5.4.6.3 – Constructive Use:** This section deals with Section 4(f) properties under the USDOT Act of 1966 (publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state or local significance), and Section 6(f) of the Land and Water Conservation Act of 1965 (other than the historic resources described in Section 5.4.5, *Cultural Resources*) (49 USC 303, et seq., 16 USC 460L-460L-11). The City of Stuart has no known Section 6(f) properties. However, there are two (2) major and one (1) minor 4(f) park properties, and several historic properties within the City. There is ample discussion regarding Jonathan Dickinson State Park in the DEIS, but no specific consideration is given to the Martin



County recreation facilities, such as “Doc” Myers Park, and the Port Salerno Community Center, or to City of Stuart facilities such as Martin Luther King, Jr. Park, Sailfish Park, Kiwanis Park, Flagler Park, and the Heart of Haney Creek Preserve, all of which are within 150 feet of the FECR right of way.

- a) According to the statement in this section of the DEIS, “Substantial impairment is determined to occur when there is a substantial diminishment of the activities, features, and attributes of the Section 4(f) recreation resources. This evaluation of constructive use of Section 4(f) recreation resources for the Project reviewed potential noise, vibration, aesthetics and access effects.” There is no discussion, evaluation or consideration given in the DEIS to the effects brought about by adding 32 new trains each day to these heavily used park facilities, and no mitigation is proposed.

- 22. Section 5.4.8.2 - Environmental Consequences - Energy Use:** The DEIS makes the point that although the AAF locomotives will use approximately 1.9 million gallons of diesel fuel each year, the savings for personal automobile use will be about 6.7 million gallons of fuel. This is a laudable savings, and the City of Stuart points out that this fuel ratio of AAF/ personal use could be increased even more by providing a station stop in Stuart, enabling Martin and St. Lucie County residents (as AAF passengers) to avoid driving to Orlando International Airport (MCO) and to West Palm Beach, Fort Lauderdale, and Miami.
- 23. Section 6.4 - Description and Use of Section 4(f) Resources:** This section describes, in part, the rationale for the replacement of the 1925 Bridge over the Eau Gallie River (Sec. 6.4.1). “The original railroad crossing of the Eau Gallie River in Melbourne, Brevard County, was constructed in 1925 as a fixed viaduct bridge with two tracks on an open deck. The bridge has 15 spans and is approximately 600 feet long. The substructure consists of steel bents on concrete piles, with cross-ties between bents. At some point during its operating history, the railroad was reduced to a single active track on the eastern side of the deck. The western tracks were not maintained and are in a state of dilapidation and disrepair.” (Sec. 6.4.1.1). The very next section describes its replacement. **“6.4.1.2 Proposed Use:** AAF proposes to construct a new twin 575-foot independent ballast deck bridge that will be located to the east of the existing railroad bridge. The existing



bridge will be demolished. The demolition and removal of the existing bridge is necessary to protect navigation uses on the waterway, as determined by the U.S. Coast Guard (USCG). The demolition of the bridge is an adverse effect under Section 106 (see Section 5.4.5 in Chapter 5 for the finding of adverse effect) and therefore constitutes a use under Section 4(f). The bridge is within the FECR right-of-way and no property acquisition is required.”

a) The City of Stuart makes the same argument for the replacement of the 1925 vertical swing trestle bridge over the St. Lucie River. It should be noted that there is no discussion or consideration given in the DEIS for the replacement of the St. Lucie River trestle bridge with a new bridge or with a tunnel, nor is it even mentioned in this section dealing with the subject of 4(f) properties. While the St. Lucie River crossing is about twice as wide as the Eau Gallie River crossing, the St. Lucie River serves a much larger boating community, and it is similar to the Sebastian River crossing, although the St. Lucie River crossing is some 400 feet shorter than the 1,635 foot length of the Sebastian River crossing, which is also being replaced.

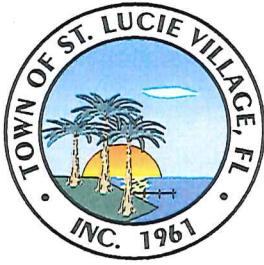
b) The St. Lucie River is a unique waterway, composed of the federal Okeechobee Waterway, which is an Emerging Strategic Intermodal System (SIS) (east and west), and which serves as a connector with the Atlantic Intracoastal Waterway (north and south), and the Atlantic Ocean. There is no other location on the east coast of Florida with this type of navigable water access. As a result, it is not reasonable to add 32 trains per day, without significant mitigation of the impacts this will cause to the recreational and commercial boating communities.

24. **Section 7.2.2. - Navigation:** This paragraph is in the “Mitigation” section of the DEIS, and claims to resolve the issues common to the three (3) vertical swing bridge crossings (New River, Loxahatchee River, and St. Lucie River). The first six of the mitigation methods proposed involve “notice” of bridge closings through 1) scheduling, 2) internet app, 3) countdown horns, 4) contact with first responders, 5) coordination with local authorities during peak boating times, and 6) coordination of schedules through the USCG. At the New River, AAF proposes to place a “bridge tender” as a means of solving conflicts and interference with commercial boat traffic. The City of Stuart believes that all seven (7) of these mitigation measures are minimal, and almost ineffective, and don't reflect or compensate for the actual



interference and damage that 32 additional trains will place on the commercial and recreational boating community. Additional measures should be studied and proposed, including but not limited to replacement of the 1925 trestle bridge over the St. Lucie River with a double-tracked, wide clear span bridge or a tunnel crossing under the St. Lucie River .

25. **Section 7.2.4.2 - Vibration Mitigation:** Because of the proximity of a great number of historic structures to the FECR right of way within the City of Stuart, and particularly within the historic downtown of Stuart, AAF should be required to install “ballast mats” and other mitigation, for noise and vibration dampening throughout the approximately 2 mile length the FECR right of way transects the City.
26. **Section 7.2.13 - Section 4(f) Resources:** Mitigation of Sec. 4(f) resources is not proposed for the City of Stuart. The City believes the entire historic downtown on either side of the FECR right of way is within the Area of Potential Effect (APE), and deserves special consideration of the historic structures comprising the downtown which was built beginning in the 1880s.
 - a) The historic Lyric Theater (c. 1926) just completed a \$1.5 million renovation. At least half of that cost (according to the Executive Director, John Loesser) was structural, and while no claims have yet been made, it is likely that vibration from the FECR right of way from 1926 to the present had a causative role.
27. **Conclusion:** Before permitting, AAF should be required to identify, quantify, qualify, and resolve all reasonable environmental, noise, vibration, air quality, environmental justice, maritime, and economic impacts from MP 259 to MP 263.



Town of St. Lucie Village

P.O. BOX 3878 • FORT PIERCE, FLORIDA 34948 • (772) 466-6900

November 21, 2014

**FEDERAL EXPRESS,
CERTIFIED MAIL RETURN RECEIPT REQUESTED and**
Via e-mail: AAF_comments@vhb.com

John Winkle, Director
Federal Railroad Administration
1200 New Jersey Avenue, S.E., Room W 38-31
Washington, D.C. 20590

Re: Draft Environmental Impact Statement on All Aboard Florida

Dear Mr. Winkle:

The Town of St. Lucie Village (the Village) appreciates the opportunity to comment on the Draft Environmental Impact Statement (Draft EIS) for the All Aboard Florida (AAF) project. We are very concerned that the impacts to the Village are not adequately addressed in the draft EIS.

The Village is a small town (population 600) that was first settled in 1843. The oldest part of the Village is a National Register Historic District with 33 contributing homes and structures. The 2.6-mile length of the Village is bisected by the Florida East Coast Railway (FECR) right-of-way from approximately mile marker 236.7 through 239.3, adjacent and parallel to the Old Dixie Highway (State Road 605) right-of-way. The Village's predominant land use is single-family residential and this use borders the FECR/Old Dixie Highway right-of-way on either side throughout most of the Village. The oldest home in the Village was built in 1875, 19 years before Henry Flagler built the railroad through what is now St. Lucie Village. Though the Village has coexisted with the railroad for 120 years, the AAF project has the potential to drastically change that.

As designed, the AAF project will provide no benefits for the Village and will have very serious and long-term detrimental impacts that will forever alter the quiet, residential character of the Village and degrade the quality of life for Village residents. These impacts are described in the Town's comments on the draft EIS attached to this letter. The following is a brief summary of these comments:

1. The Level 1 Screening Analysis is inadequate for a project of this magnitude, as it does not address the economic impacts of selecting the FECR corridor for the north-south route between Orlando and West Palm Beach on the coastal cities, towns and counties between Cocoa and West Palm Beach.
2. Safety issues, including at-grade crossings, bicycle and pedestrian safety, trespasser issues, crossing delays and safety considerations for traffic on Old Dixie Highway are not adequately addressed.

John Winkle, Director

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3. The draft EIS does not contain any analysis of the impacts on the Village resulting from locating the triple-track center siding in the Village. The compounded safety, noise, and aesthetic impacts of locating a third track center siding through most of the 2.6-mile length of the Village, in addition to adding a second track through the entire Village, must be addressed in the Final EIS.
4. Economic impacts on the Village, including costs to implement quiet zones, increased periodic maintenance costs, decreased property values, and the potential for increased non-local tax burden are not addressed.
5. Noise impacts on the Village are addressed in a superficial manner and do not take into account the close proximity of residential land uses to the FECR right-of-way. The generic analysis of vibration effects does not take into account the significant potential for increased freight traffic posed by the dual-track system and the impacts of increased vibration on historic homes within the Village.
6. The significant cultural and historic resources within St. Lucie Village, including its National Register Historic District, are not adequately addressed.
7. The effect of other projects to accommodate post-Panamax container shipping on rail traffic in the FECR corridor and the impacts of greatly increased rail traffic in the future are not adequately addressed in the Draft EIS.
8. The mitigation and commitment section of the draft EIS is inadequate. Public health and safety are not addressed, sealed corridor treatment is not considered, and there is no commitment to funding quiet zones.
9. The Draft EIS does not recognize the Town of St. Lucie Village as an incorporated town in discussions of local government entities and coordination with those entities.

The Village is requesting that all of the attached comments on the Draft EIS be competently and objectively addressed in the Final EIS. We are also requesting that a third, independent party review the Draft EIS comments and the manner in which they are addressed in the Final EIS.

Sincerely,



William G. Thiess, Mayor

WGT

Enclosures

cc: Michael Busha, Treasure Coast Regional Planning Council
Richard Gillmor, Treasure Coast Regional League of Cities
Mayor Linda Hudson, Treasure Coast Council of Local Governments

**COMMENTS ON DRAFT ENVIRONMENTAL IMPACT STATEMENT
AND SECTION 4(F) EVALUATION
TOWN OF ST. LUCIE VILLAGE, FLORIDA
NOVEMBER 21, 2014**

Background

In order to accurately assess impacts of the All Aboard Florida (AAF) project on the Town of St. Lucie Village (the Village), it is important to understand the history of the Village, its slow-paced residential character, and the physical configuration of the Village in relation to the Florida East Coast Railway (FECR) right-of-way. The Village is a small (population 600), historic, primarily residential town just north of Fort Pierce that was first settled in 1843. The oldest part of the Village is a National Register Historic District with more than 30 contributing homes and structures. The oldest home in St. Lucie County, the Russell Home, was built in 1875 near the center of this district, 19 years before Henry Flagler built the railroad through what is now St. Lucie Village. The Village has managed to co-exist with the railroad for 120 years, but the AAF project has the potential to drastically change that.

The Village lies between U.S. Highway One and the Indian River Lagoon, immediately north of the City of Fort Pierce. It is over 2.6 miles long in the north-south direction and less than one half mile wide at its widest point. The FECR right-of-way parallels Old Dixie Highway and bisects the Village throughout its length, with mostly residential development closely bordering the railroad tracks on either side (see Exhibit 1, Future Land Use Map, Town of St. Lucie Village). There are six railroad crossings within the Village, four of which offer the only means of access to and from the neighborhoods they serve.

Our understanding is that there are now approximately 14 freight trains passing through the Village daily. The AAF project will add an additional 32 trains per day passing through the town at speeds of up to 110 miles per hour. This represents an increase of more than three times the current number of train passages. The 30% plans for the project show a third set of tracks through nearly the entire length of the Village that will be used as a center siding, where long freight trains will be diverted at greatly reduced speed to allow faster passenger trains to pass. This presents its own set of adverse impacts to the Village, none of which are addressed in the Draft EIS.

The AAF project raises serious concerns for the Village related to safety, cost, noise, traffic delays at crossings, traffic safety on Old Dixie Highway, and decreasing property values in the Village. This project appears to be on a fast track, so these concerns are immediate and must be addressed in the Final EIS. The Village's comments on the Draft EIS are contained in the remainder of this document.

Inadequacy of Level 1 Screening Analysis for Route Alternatives (Section 3.3.1)

The Level 1 Screening Analysis of alternative routes between Orlando and West Palm Beach is superficial and totally inadequate for a project of this magnitude. The only costs considered in the analysis are the costs to AAF to construct the project. There is no consideration given to the costs incurred by all of the coastal communities between Cocoa and West Palm Beach, and these costs are substantial in magnitude and continuing in duration. The FECR route preferred in the Draft EIS will result in increased costs to each city, town and county along the route for constructing quiet zones and reconfiguring traffic patterns to address safety issues and maintain traffic across the FECR right-of-way. In many cases, overpasses may ultimately be necessary to maintain safe connectivity between the east and west sides of the tracks in busy downtown areas or where major highways cross the tracks. There will be the significant and recurring costs for increased periodic maintenance of the at-grade crossings, which already comprise a substantial portion of the annual budget for the Village. Over time, there will be a significant reduction in ad valorem tax revenues for properties in close proximity to the FECR right-of-way. This impact on tax revenues will increase over time as the traffic, safety and noise issues increase with increased rail traffic.

Perhaps more significant in terms of long-term costs to these cities, towns and counties is the strong potential for the project to negatively affect economic development and tourism. Having a dual-track rail system that includes numerous high-speed passenger trains and long freight trains bisecting the downtown areas will change the character of these communities forever and will be a deterrent to business expansion, new business development, and tourism. Many of these communities are still struggling to recover from the recession and are dealing with numerous empty buildings and loss of vitality in the downtown areas. Selecting the FECR route will pose a serious obstacle to revitalizing these areas and attracting business and tourists. It also will have very negative effects on aesthetics and the quality of life in these areas, the value of which cannot be reduced to mere dollars and cents.

The adverse economic impacts of the AAF project on coastal communities between Cocoa and West Palm Beach are significant, they are long-term, and they have the potential for permanent damage to the economic development potential of these communities. Because of this, they should be evaluated by an unbiased party in a present worth analysis over the life of the AAF project. The minimum evaluation period should be 25 years.

It is recognized that there will be benefits to business, commerce, and, tourism in areas outside the Cocoa-to-West Palm Beach north-south corridor. This would be particularly true in the Orlando and Miami areas. However, in the comparison of the four Level 1 screening alternatives, these positive economic effects do not offset any of the negative economic effects of the FECR route alternative on coastal communities because they are the same for all four alternatives. The FECR route stands alone as the alternative with significant, detrimental, and lasting impacts on the coastal cities, towns, and counties of east central Florida resulting primarily from noise, safety, traffic and economic impacts associated with the 129-mile, high-speed rail corridor with

159 at-grade crossings bisecting their communities. A western Orlando-to-West Palm Beach route would most likely receive wide public acceptance and support, which would present potential opportunities for private-public partnerships to address the higher costs.

Safety Issues (Section 4.4.4)

Crossing Safety. The Village is very concerned that addition of 32 high-speed trains travelling at speeds of up to 110 mph will constitute a safety hazard at the six Village at-grade crossings. According to the Federal Railroad Administration (FRA) database, there have been 43 "crossing incidents" in the four counties between Cocoa and West Palm Beach and more than 30 trespasser fatalities over the past 15 years. While we recognize that the proposed safety improvements will offset some of the increased risk associated with more frequent and faster trains, we remain very concerned that electrical/mechanical malfunctions of the safety equipment, human error in operations, trespassers' determination to "beat the system", or driver/vehicle malfunctions will result in a much higher risk of accidents at crossings. All recommendations by the Federal Railroad Administration, including implementation of Vehicle Presence Detection systems, should be implemented. The risk of train derailment due to the mix of high-speed commuter trains with lower-speed freight trains, combined with the numerous at-grade crossings, must be addressed in the Final EIS.

Pedestrian and Bicycle Safety at Crossings. The FECR corridor bisects the Village throughout its 2.6-mile length. Residential lots are adjacent to the FECR corridor and Old Dixie Highway right-of-way on either side, with the only notable exception being the 70-acre St. Lucie Village Heritage Preserve between Milton and Torpey Roads. There is pedestrian and bicycle traffic throughout this area. The safe passage of pedestrian and bicycle traffic through the crossings is not addressed in the Draft EIS. Of particular concern is the fact that the crossing streets at Old Dixie Highway are school bus stops, where school children of all ages are picked up and dropped off daily throughout the school year.

Trespasser Issues. The "Onsite Engineering Field Report - Part 1" noted that "Trespassing is epidemic along this corridor." The Village is no exception to this observation, as both local and itinerant pedestrian, bicycle and off-road sport vehicle traffic is commonly observed on or near the tracks within the Village. This is not addressed in the Draft EIS. If fencing or other barriers to restrict access are to be used to address the trespassing issue, maintenance and aesthetic issues associated with those barriers needs to be addressed in the Final EIS.

Crossing Delays. Though the crossing time for the AAF trains should be shorter than that for the current freight trains, the more than three times increase in the number of trains passing through the Village will significantly increase the number of daily road closures at Village crossings. In addition to being a nuisance and potential safety hazard for residents entering and leaving their neighborhoods, it will cause much more frequent delays for emergency vehicles. Seconds count when responding to fires, health emergencies, or law enforcement issues, and this presents an increased risk to the health, safety, and property of residents east of the FECR corridor.

Old Dixie Highway Traffic Impacts. Constructing a second track west of the existing track will move the crossing gates west and will restrict or eliminate vehicle storage west of the crossing gates on the crossing streets, outside the travel lanes of Old Dixie Highway. This condition will require north-bound and south-bound traffic on Old Dixie Highway turning east into the side streets to stop in the travel lanes until the crossing gates are raised. Old Dixie Highway is a heavily-travelled road, used for local traffic and as an alternate to U.S.1 for traffic between Fort Pierce and Vero Beach. There are frequent vehicle accidents on Old Dixie Highway and increasing the occurrence of stopped vehicles in the travel lanes will increase the potential for accidents and degrade the level of service. This issue is not addressed in the Draft EIS. This impact is even more severe if the triple-track section remains in its current location, as discussed below.

Triple Track Center Siding in North St. Lucie County (Section 3.3.3.3 and Appendix 3.4-B4)

The project as designed includes a third track beginning just north of St. Lucie Lane near the south end of the Village and extending about five miles throughout most of the Village and into Indian River County. AAF officials have indicated that the triple-track segment passes through nine at-grade crossings, four within the Village and five in northern St. Lucie and southern Indian River County. The stated purpose of this third track is to divert freight trains into a "center siding" to allow the faster AAF passenger trains to pass. While AAF personnel have stated that the intention is for the freight trains to maintain as much speed as possible as they are diverted through the siding and move them out of the siding as quickly as possible, they did state in meetings with Village officials that they could not rule out very slow passages through the siding, or even an occasional stopped freight train in the siding. This presents a huge problem for the Village. The northern four of the six grade crossings in the Village fall within this five-mile triple track section and the two southern ones will be impacted to a lesser extent by freight trains slowing down to enter the siding, or getting up to speed to exit the siding. The three northernmost Village crossings are the only points of access into those neighborhoods from Old Dixie Highway, as shown in Exhibits 2A, 2B and 2C. Extended delays at these crossings are bound to happen and they will present life safety issues, in addition to nuisance delays for residents. Emergency fire/rescue and law enforcement vehicles may face unacceptably long delays for a very slow or stopped train, losing valuable time to respond to a medical emergency, fire, or law enforcement emergency where delays could result in loss of life or property.

In our review of the Draft EIS, the Draft EIS appendices, and 30% crossing plans, we have not found definitive design information on the turnouts and crossovers that will be used to enter and leave the center siding. Based on the drawing in Appendix 3.3-B4, they do not appear to be designed for high entry and exit speeds. The Final EIS should address the design speed for these transitions to the center siding.

The third set of tracks will also require placement of the crossing gates even further to the west than at the dual-track crossings, practically eliminating all vehicle storage in the crossing streets when the gates are down. This will force all north and south-bound traffic on Old Dixie Highway

that intends to turn east onto the side streets to stop in the travel lanes until the gates are raised, possibly for an extended period when a freight train is passing very slowly through the siding or even stopped. Old Dixie Highway is a heavily-travelled county road that in addition to handling local traffic, functions as a frequently-use alternative to U.S.1 for traffic between Fort Pierce and Vero Beach. There have been many accidents on this road within the Village over the years. Having traffic stopped in both travel lanes on a regular basis, even if for a short time when the center siding is not being used, will create an unsafe condition and degraded level of service for this road.

Other significant impacts of the third track through most of the Village include the additional, extended noise of trains slowing down or stopping in the siding and again when they start gaining speed to leave the siding. For the many homes in close proximity to the triple track section, it will sound as if they are in an industrial "train yard", rather than the peaceful neighborhood they once knew with the occasional passage of freight trains. The triple-track center siding throughout most of the Village will also impact the visual aesthetics of the area and add significantly to the devaluation of property within the Village that will occur with the AAF project.

Given the statements above, it is particularly disturbing that the Draft EIS contains no analysis of the impact of the third track on the Village. In fact, the EIS simply states that the triple track is going to be constructed and lists locations. That list doesn't even include St. Lucie County (although a third track is shown by Appendix 3.3-B4 to be in the Village which is in St. Lucie County). There is absolutely no analysis of the impact in this section; it is simply stated as a fact. Also, the third track is not addressed in Section 4.4.4, the section on existing and proposed conditions with respect to health and safety of the residents and communities. It is also not referenced in Section 5.4.4, the section on proposed conditions with respect to the health and safety of residents and communities. It is not even considered in the analysis of traffic delays along the N-S Corridor at pages 5-11 through 5-13. The Draft EIS does not include any analysis of alternative locations to those reflected in Appendix 3.3.B4 and this is a serious omission.

Considering the extensive impacts throughout the Village created by the current location of the triple-track center siding, alternative locations for the siding should be given serious consideration if the FECR route is ultimately selected. Other sites with apparently lesser impacts have been identified. One five-mile stretch of FECR track north of Vero in an area of low population density impacts only two crossings. Sites north and south of Midway Road might not impact any crossings. Impacts of the triple-track center siding on the Village will undoubtedly get worse with the future increase in freight traffic spurred by increased shipping into Port Everglades and Miami upon completion of the Panama Canal widening project. The current location is absolutely unacceptable to the Village for the reasons stated above, coupled with our strong (and most likely accurate) feeling that there would be little, if any, consideration for the residential nature of the triple track location in its use to manage freight and passenger train traffic in the future when the rails are much busier.

Economic Impacts

Quiet Zone Costs. In order for the Village to maintain as much of its peaceful, residential character as possible in the event the FECR route is selected, implementation of quiet zones throughout the Village would be necessary. It is still not clear what the initial and recurring cost of these quiet zones would be, nor is it clear how they would be funded. Since the AAF project offers no benefits to the Village and all beneficial aspects of the project are realized by either AAF or communities well north or south of the Village, the cost of implementing quiet zones should be borne by AAF or other outside sources.

Increased Periodic Crossing Maintenance Costs. There are five publically-maintained crossings within the Village and the Village currently has financial responsibility for maintaining all or half of four of them (100% of Torpey Road, and 50% of Rouse Road, Chamberlin Boulevard, and St. Lucie Lane). This past year, the Village was assessed over \$86,000 for maintenance on the Torpey Road crossing, which represents 24 percent of the Village's entire fiscal year 2014 budget. The cost of this periodic maintenance will increase substantially if this project is constructed in the FECR corridor due to the greater number of tracks and the increased cost of maintaining additional safety features. If the triple-track section remains at the Chamberlin Boulevard, Milton Road, Torpey Road and Rouse Road crossings, the added cost will be ever greater. The magnitude of these costs has not been identified, but they appear certain to be significant and most likely tax increases will be required to fund the additional cost. The Final EIS must address these costs.

Decrease in Property Values. Studies in other areas where high-speed rail projects have been constructed showed a significant decline in residential property values. A draft report entitled "The Effect of Rail Transit on Property Values: A Summary of Studies", prepared for the NEORail II project in Cleveland Ohio in 2001 referenced studies that showed declines in residential property values of 5-20%, with the magnitude of the impact generally decreasing with distance from the tracks. One study documented a loss of 20% for residential properties located within 400 feet of the tracks and another documented property value decreases one half mile from rail lines. Of the 300 homes in the Village, approximately 160 are within 400 feet of the tracks and all are within 1,500 feet of the tracks. Granted, there is already a rail line passing through the Village, but the proposed double and triple tracking with three times the train traffic and mixture of high-speed and slower freight trains will certainly impact residential property values. Decreasing property values will affect all homeowners and will also result in decreased ad valorem tax revenues for the Village. The magnitude of these impacts, based on the numerous studies available in other areas, must be documented in the Final EIS.

Potential Non-local Tax Burden. The proposed \$1.6 billion, federally-guaranteed Railroad Rehabilitation and Improvement Financing (RRIF) loan for the project has significant potential to put an added financial burden on U.S taxpayers. Passenger rail projects have consistently demonstrated an inability to fully pay debt service for the project from rider revenues. Relevant examples include the reported \$58 million Tri-Rail loss on the Miami-to-Palm Beach route in 2013 and the \$88 million Amtrak loss on the Miami-to-Orlando route in the same year. A detailed

financial plan for the AAF project was not made available for public inspection, but it would seem like there is a significant potential for similar losses with the rail passenger aspect of the AAF project. Use of Private Activity Bonds (PABs) in conjunction with or in lieu of the RRIF loan would exempt the bond buyers from paying income tax on profits from the bonds, which would result in a loss of federal tax revenue in comparison with private financing alternatives for the project. The Government Accountability Office (GAO) should conduct a financial analysis of the AAF plan examining the potential risks and costs to taxpayers, the possible interest rates that would be appropriate for the RRIF loan, and whether or not private financing could be sustained for this project.

Noise and Vibration Impacts (Section 5.2.2)

Train Horns and Crossing Audible Warning Signals. The more than three times increase in passages of trains through the Village resulting from the AAF project will significantly increase the noise impacts on Village residents. All homes in the Village are within 1,500 feet of the FECR right-of-way and can clearly hear the train horns. Switching to fixed horns at the crossings may reduce noise impacts for some residents, but noise impacts will still be significant due to the relatively close spacing of the six crossings. The magnitude of the increase in train horn and crossing audible signal "events" poses a serious threat to the peace and tranquility of the Village. Implementation of quiet zones throughout the Village would presumably mitigate some of these noise impacts. However, the cost of establishing the quiet zones is unknown at this point and the initial and recurring costs we have seen in various reports appear to be beyond the financial means of the Village. Constructing a dual-track railway through the north-south corridor will have the secondary impact of increasing freight rail traffic in the future, and this will have a significant impact on future noise levels in the Village. The Final EIS should specifically address all of these noise impacts on the Village, as they are significant and have the potential to seriously degrade the quality of life in this historic residential area.

Additionally, the Village is not satisfied that the generic analysis of vibration effects in the Draft EIS adequately addresses the long-term impacts of increased vibration on historic homes and structures in the Village, many of which are multi-story and well over 100 years old. Of particular concern is the potential that the dual-track railway has for greatly increasing freight traffic through the Village in the future and the vibration effects of the heavier, longer freight trains added to the frequent passage of passenger trains. The Final EIS should specifically address the secondary effect of increased freight traffic and the vibration effect on historic structures in the Village.

Noise of Train Passage. While we recognize that the AAF trains are lighter, quieter and pass through much faster, they still will constitute a significant increase in noise pollution for homes in close proximity to the tracks. This is particularly true in cooler seasons when residents leave their windows open. It appears there is little that can be done to mitigate this impact, other than move the north-south corridor to a more western location.

Cultural Resources and Historic Resources (Section 5.4.5)

Other than the listing of Fort Capron as an archaeological site in Table 4.4.5-14, there is no mention in the Draft EIS of the significant cultural and historic resources within the Village. The St. Lucie Village Historic District is on the National Register and is comprised of 33 contributing homes and structures. Many of the residential lots on which these historic homes are located abut the FECR right-of-way. The St. Lucie Village National Register Historic District will be degraded by the AAF project as a result of the detrimental impacts described in this document.

In addition to Fort Capron and the Village's National Register Historic District, there are Pre-Columbian and pre-historic Ais middens and burial mounds within the Village. There is also a historic cemetery (Payne-Jones Cemetery) west of the FECR right-of-way, just south of Olsen Avenue. Section 5.4.5 of the Draft EIS states that the Project would have no direct or indirect effects (noise, vibration or change in setting) on the historic resources located adjacent to the N-S Corridor. However, in a May 30, 2014 e-mail from Ginny Jones of the State Historic preservation Office, she states that "Fort Capron does fall within the APE, that it is eligible for listing on the National Register of Historic Places, and that the impacts of the proposed project on the site have not yet been assessed." Also, Maps 52 and 53 of Appendix 4.4.5 B3, Cultural Resources, approximate but do not accurately depict the Third Seminole War U.S. Army Fort Capron's (1850-1859) area. The Final EIS must properly address impacts of the AAF project on the significant cultural and historic resources of the Village.

Mitigation (Section 7)

Section 7 of the draft EIS addresses mitigation and commitments, but only in very general terms and with little specific mitigation. This section does not even contain a subsection on public health and safety. Clearly, the grade crossings are potentially dangerous and sealed corridor treatment would be merited (per the "Outside Engineering Field Report – Part 1"), but that is not even considered.

Further, at subsection 7.2.4, in describing noise and vibration mitigation, the only specific mitigation is a commitment to the pole-mounted horns. There is a reference to quiet zones at the bottom of page 7-5; however, the note is that they are being considered by "affected communities". AAF should be mitigating the consequences of its project, instead of placing the burden on the public and this should be addressed in the Final EIS. It is also of note, relative to specific impacts to this community, that there is no mitigation or commitment pertaining to the third track which is planned for the Village. This very definitely needs to be addressed in the Final EIS.

Effect of Other Projects to Accommodate Post-Panamax Container Shipping on Rail Traffic in the FECR Corridor

The dual track system that will be installed with the AAF project will increase the capacity of the FECR rail corridor to move freight. Table 3.3-1 indicates that the average number of trains per day will increase from 14 in 2013 to 20 in 2016 and is projected to increase at 3% annually after 2016. The Draft EIS text in Section 5.1.3.2 (page 5-17) indicates that this projected increase is due to the timing of completing expansion of the Panama Canal to handle the larger post-Panamax container ships. It is also obviously tied to completion of port projects in Miami and Port Everglades to accept these larger container ships and the need to move freight north. At a 3% growth rate in the number of trains beyond 2016, there would be 42 freight trains passing through the FECR corridor in 2041, 25 years after completion of the Panama Canal expansion project. These trains would be sharing the dual-track system with 32 high-speed passenger trains. The Draft EIS does not address this extremely high level of mixed freight and high speed passenger rail traffic in the FECR corridor that is projected to occur in the future. All of the impacts described in this document, particularly those related to railway and crossing safety, crossing delays, noise, vibration, declining property values and recurring maintenance costs incurred by local governments would be much more severe at this future date. The Draft EIS does not address impacts on cities, towns and counties in the north-south corridor at these future projected train traffic levels. The Final EIS should provide an accurate and detailed assessment of impacts in the north-south FECR corridor at these projected future train traffic levels.

Exclusion of the Town of St. Lucie Village in Discussions of Local Government Entities

Other than references to Fort Capron as a historic site in Table 4.4.5-14 and St. Lucie Village Heritage Park (now St. Lucie Village Heritage Preserve) in Table 4.4.6-2, there is no mention of the Town of St. Lucie Village as an affected local government in the draft EIS document. Specific omissions include:

- On PDF page 134 (4-3), the discussion of existing land uses references incorporated municipalities that AAF goes through, but doesn't reference St. Lucie Village.
- Table 4.1.1-1 (pg. 135, 4-4) lists land use plans of various counties and municipalities, but not the Village.
- At page 234 (4-103), there is another reference to passing through numerous incorporated municipalities - not including St. Lucie Village.
- On page 256 (4-125), local government contacts concerning locally designated cultural resources are listed and there is no contact for St. Lucie Village.

Map 1.4 2020 Future Land Use Map, Town of St. Lucie Village

EXHIBIT 1

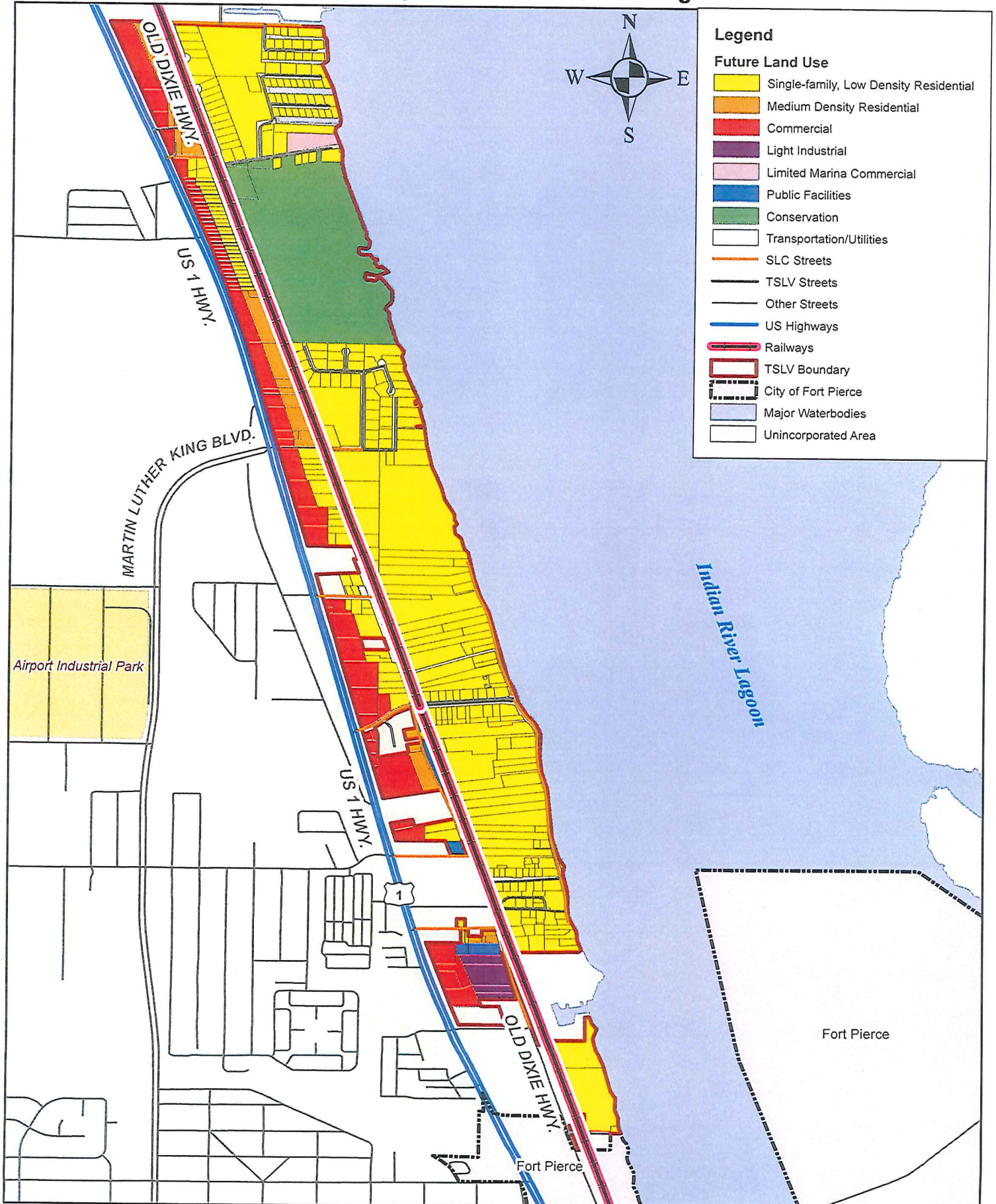


EXHIBIT 2A



EXHIBIT 2B

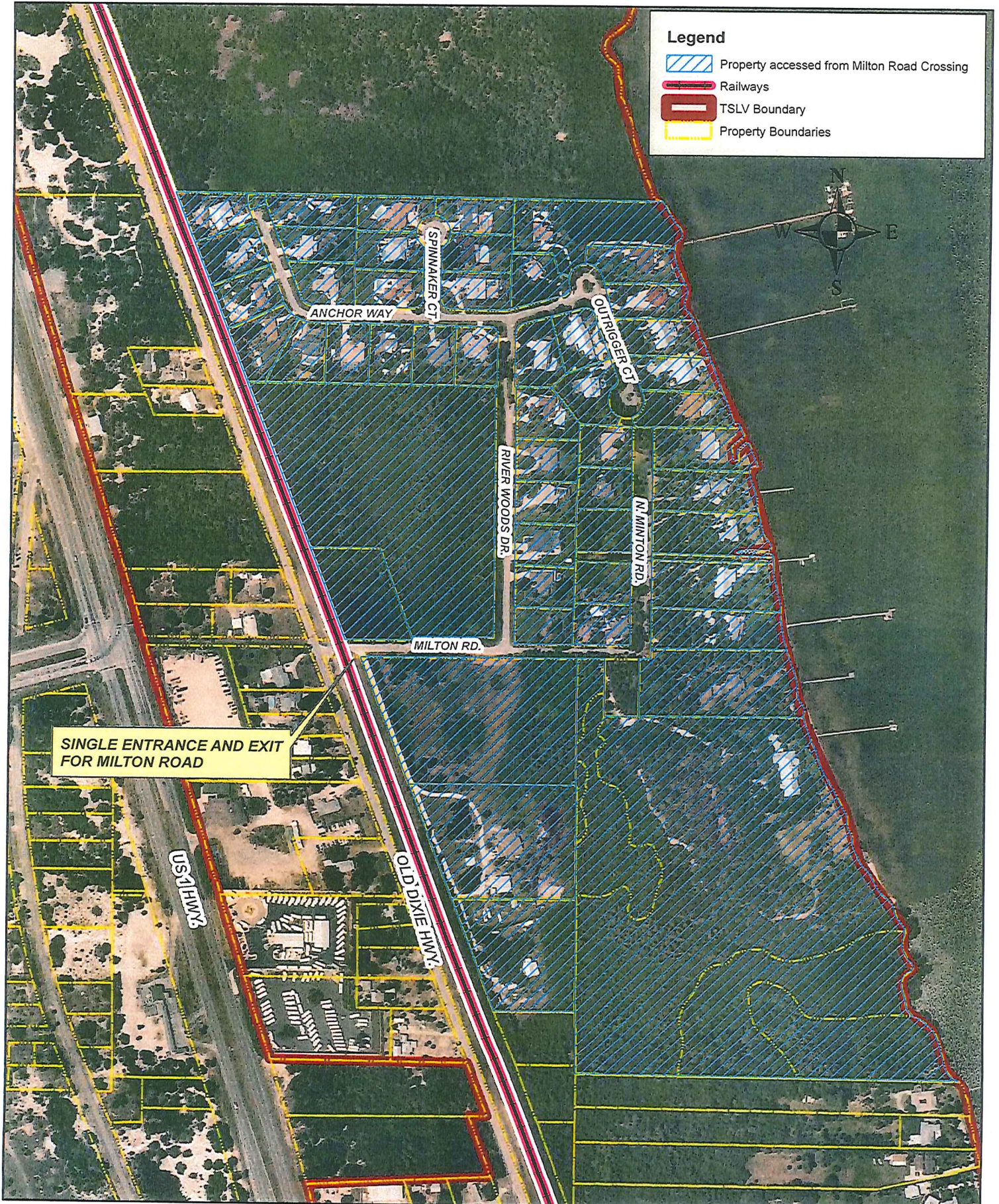


EXHIBIT 2C





United States Department of the Interior

FISH AND WILDLIFE SERVICE
South Florida Ecological Services Office
1339 20th Street
Vero Beach, Florida 32960



December 3, 2014

John Winkle
Federal Railroad Administration
1200 New Jersey Avenue
SE Room W38-311
Washington DC 20590

Service CPA Code: 2013-CPA-0029
Service Consultation Code: 2013-F-0025
Date Received: September 22, 2014
Project: All Aboard Florida Passenger Rail
Service from Orlando to Miami
Counties: Brevard, Orange, Palm Beach,
Martin, St. Lucie, Indian River

Dear Mr. Winkle:

The U.S. Fish and Wildlife Service (Service) has reviewed your Draft Environmental Impact Statement (DEIS) dated September 19, 2014, and other information submitted by the Federal Railroad Administration (FRA) for All Aboard Florida Passenger Rail Service from Orlando to Miami. The Service's comments on the DEIS are presented below and are provided in accordance with the Endangered Species Act of 1973, as amended (Act) (87 Stat. 884; 16 U.S.C. 1531 *et seq.*).

PROJECT DESCRIPTION

All Aboard Florida LLC (AAF) is proposing to construct and operate a privately owned and operated intercity passenger railroad system that will connect Orlando and Miami, with intermediate stops in Fort Lauderdale and West Palm Beach, Florida (Project). To finance the Project, AAF has applied for \$1.6 billion in Federal funds through the FRA's Railroad Rehabilitation and Improvement Financing (RRIF) program. AAF proposes to implement the Project through a phased approach. Phase I would provide rail service on the West Palm Beach to Miami section while Phase II would extend service to Orlando. Phase I would provide passenger rail service along the 66.5 miles of the Florida East Coast Railroad (FECR) Corridor connecting West Palm Beach, Fort Lauderdale, and Miami.

Phase I of the Project includes the construction of three new stations (West Palm Beach, Fort Lauderdale and Miami), acquisition of five trains, construction of a second track along most of the 66.5-mile corridor, and 16 new round-trip intercity passenger train trips (32 one-way trips) on the West Palm Beach to Miami section of the FECR Corridor. FRA and AAF conducted an

environmental review of Phase I in 2012 and 2013 and made a finding of “No Significant Impact” (FONSI). FRA concluded Phase I has independent utility, and could be advanced and serve a transportation need even if Phase II were not constructed. Consequently, FRA authorized AAF to construct the Phase I component of the Project. However, to date, FRA has not determined if a RRIF loan would be provided independently for Phase I.

Phase II of the Project includes: constructing a new railroad line parallel to State Road (SR) 528 from the Orlando International Airport to Cocoa; constructing a new vehicle maintenance facility on property owned by the Greater Orlando Airport Authority; adding a second track, straightening curves, and reconstructing 18 bridges within 128.5 miles of the FECR Corridor between West Palm Beach and Cocoa; and additional bridge work along the corridor from Miami to West Palm Beach. Phase II would add 16 new round-trip intercity passenger train trips (32 one-way trips) on the new railroad segment and on the FECR Corridor between Cocoa and West Palm Beach. Maximum operating speeds along the entire corridor would range from 79 to 125 miles per hour (mph), depending upon the location. Operating speeds will be greatest along the SR 528 corridor where there would be no highway-rail grade crossings.

Construction and operation of AAF passenger train service will include the entire corridor from Orlando to Miami. Therefore, the FRA produced a DEIS that analyzes the cumulative effects of completing both phases of the Project. However, because Phase I has already been addressed under the National Environmental Policy Act with a FONSI, it is not reanalyzed in the DEIS. The DEIS compares the effects of three action alternatives (Alternatives A, C, and E) and the “no-build” alternative. Alternatives A, C, and E present different locations of the 17.5 miles of new railroad tracks along SR 528 from Orlando to Cocoa (Alternative A - within the existing SR 528 right-of-way south of the paved travel lanes; Alternative C – along the boundary of the SR 528 right-of-way south of the paved travel lanes; Alternative E – 100 feet south of SR 528 right-of-way boundary south of the paved travel lanes).

DEIS COMMENTS

Florida scrub-jay

The Project occurs within the geographic range of the threatened Florida scrub-jay (*Aphelocoma coerulescens*). Surveys conducted by the consultants for AAF found active territories of Florida scrub-jays at four localities immediately adjacent to the AAF rail corridor: 1) Helen and Allen Cruickshank Sanctuary, between Malabar Road and Valkaria Road, and south of Micco Road in Brevard County; 2) North Sebastian Conservation Area in Indian River County; 3) Savannas Preserve State Park (SPSP) and a Florida Inland Navigation District site in St. Lucie County; and 4) Hobe Sound National Wildlife Refuge and Jonathan Dickinson State Park in Martin County. Florida scrub-jays have been observed near and flying across, the track corridor. Moreover, the Service notes it is likely Florida scrub-jays will occasionally occur within the rail corridor, either foraging or flying across the tracks. The AAF project will result in passenger trains travelling past and/or through these territories at 79 to 125 mph, 32 times a day and moving at significantly

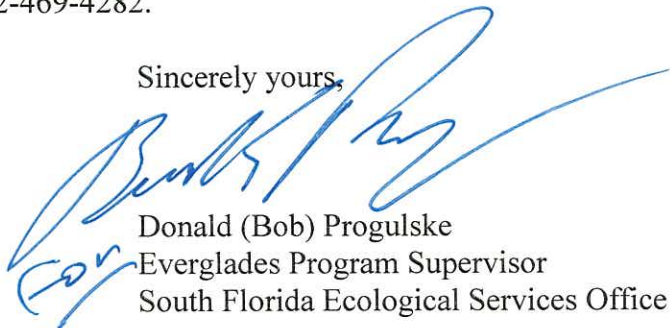
faster speeds than the freight trains currently using the corridor. This increase in rail traffic in addition to the speed of trains traveling in these areas increases the likelihood that Florida scrub-jays will be struck by a train and either injured or killed. Although the species may eventually learn to avoid the trains, the Service finds it likely that injuries or deaths of scrub-jays are reasonably certain occur as a result of the Project from train collisions. Consequently, the Service finds the Project is likely to result in adverse effects to Florida scrub-jay. We understand the U.S. Army Corps of Engineers (Corps) is completing section 7 consultation on the project on behalf of the FRA (the lead agency for the AAF project). We have contacted the Corps and recommended they request formal consultation for the Project.

Federally listed plant species

The Project occurs within the geographic range of the endangered fragrant prickly apple (*Cereus eriophorus* var. *fragrans*). Specimens of fragrant prickly apple were observed within the existing railroad footprint SPSP by staff of the SPSP. We recommend a botanical survey of the Project footprint adjacent to the SPSP be conducted to determine the status of the fragrant prickly apple and any other federally listed plant species. In addition, we recommend you contact the SPSP to obtain further information regarding the locations of the observed specimens. The results of these surveys should be provided to the Service to determine if further consultation on the fragrant prickly apple or other federally-listed plant species is necessary.

Thank you for the opportunity to comment on the proposed Project and your cooperation in the effort to protect fish and wildlife resources. If you have any questions regarding our comments, please contact John Wrublik at 772-469-4282.

Sincerely yours,



Donald (Bob) Progulske
Everglades Program Supervisor
South Florida Ecological Services Office

cc: electronic only

FWC, Tallahassee, Florida (FWC-CPS)

NOAA Fisheries, West Palm Beach, Florida (Brandon Howard)

Corps, Cocoa, Florida (Andrew Phillips)



CITY OF FORT PIERCE

PLANNING DEPARTMENT

REBECCA GROHALL, AICP, PLANNING MANAGER
COMPREHENSIVE PLANNING ♦ DEVELOPMENT REVIEW
HISTORIC PRESERVATION ♦ URBAN DESIGN ♦ URBAN FORESTRY ♦ ZONING

TO: Treasure Coast Regional Planning Council and the Federal Railroad Administration

FROM: Rebecca Grohall, Planning Manager

RE: City Of Fort Pierce Staff Comments on the Draft Environmental Impact Statement For The All Aboard Florida Project

DATE: November 14, 2014

Purpose

The purpose of this report is to outline Fort Pierce City staff comments in response to the recent Federal Railroad Administration (FRA) release of their Draft Environmental Impact Statement (DEIS) for the All Aboard Florida (AAF) Orlando to Miami Intercity Passenger Rail Project. The FRA is required by the National Environmental Policy Act (NEPA) to analyze the potential environmental impact that may result from this project. According to NEPA, the intent of a DEIS is to facilitate public discourse, allow federal agencies to study environmental impacts and assess alternatives, and inform decision makers and the public. The study evaluates the project comprehensively, but focuses primarily on Phase II West Palm Beach to Orlando. Overall recommendation is further comprehensive analysis needs to be completed with identified deficiencies being addressed, so that a complete understanding of increased train travel can be obtained.

The following report is divided into five major sections, Transportation, Land Use, Noise, & Vibration, Environmental Conditions, Hazardous Materials and Solid Waste Disposal, and Social, Economic, & Community Impacts, these sections correspond to major sections in the DEIS report.

Transportation

Roadway Network and Grade Crossings:

The proposed All Aboard Florida Orlando to Miami Intercity Passenger Rail project is expected to run 32 passenger trains per day. In addition, Florida East Coast Railway (FEC) freight train trips are expected to increase from 14 to 20, thus approximately 52 trains per day would run on the FEC rail line, by 2016. This is a tremendous increase in train activity for the Fort Pierce area. A rapid increase such as this is obviously a concern to the community. Below are the major concerns that have been identified regarding the transportation section.

Road Analysis- Currently train routes intersect vital thoroughfares for the community. These roads include:

- Seaway Drive
- Orange Avenue
- Avenue A
- Avenue D Fisherman's Warf
- North Causeway
- Avenue C (A.E Backus Ave)

Undoubtedly, a rapid increase in trains per day will negatively affect the City's roadways. FRA did analyze traffic operations at grade crossing sections (Appendix 3.3 Grade Crossing Details); however, they only analyzed the largest volume arterial roads. Specifically for Ft. Pierce, they studied North Causeway and Seaway Drive. These are major thoroughfares, connecting the mainland to the islands, but they are not the City's only major roads. Consequently, without complete analysis of all grade crossings, we contend the report is inadequate and are requesting that AAF complete a full analysis of all grade crossings.

Level of Service- Reviewing the information available in the report estimated crossing grade for North Causeway during normal cycle is expected to be at Grade A. When freight trains cross Level of Service will be at Grade C and when Passenger trains cross level of service will be at Grade B. Weighted average is expected to be at Grade A. This is above minimum level of service standards, which is a D or better.

In contrast, the estimated crossing grade for Seaway Drive during normal cycle will be at Grade A. When freight trains cross level of service will be at Grade F and when Passenger trains cross level of service will be at Grade F. Weighted average is expected to be at Grade B. The change to level of service for Seaway Drive is alarming. However, it is unclear by the report why this crossing will fall below acceptable grade levels due to train traffic.

While the report offered no suggestions as to why Seaway Drive would operate at LOS F, perhaps the answer is at the Avenue C Bridge. The bridge is a single track; presently daily operations often necessitate trains to switch to allow others to bypass. Added passenger service will presumably increase the need for railroad switching in this area. The report does not clearly state what actions will be taken to improve this crossing, in the report there is no indication FEC or AAF will be updating this bridge. In order to maintain level of service above standard grade during crossing, it will be necessary to upgrade this bridge and now would be the best time to take action.

Traffic operations- The DEIS report of North Causeway and Seaway Drive states these crossings will individually remain above acceptable level of service, but does not provide impact analysis of when trains cross multiple arterial roads simultaneously. In the case of multiple crossing closures, it is reasonable to predict further delays, as well as increase in road traffic on minor roadways which do not have the capacity for high volume traffic. The report does convey the increase in trains will cause additional closure events, but does not provide further research to understand the impact of the closures. In the report it states since passenger trains are shorter in length than existing freight, the additional impact from freight and passenger will be minimal. However supporting detail is vague and the report never addresses the overall impact of additional freight and passenger trains.

Moreover, the report does not provide any analysis on bicycle and pedestrian level of service. For the Ft. Pierce area this is important to identify, because of the City's growing alternative transportation users. Given the report's incomplete analysis of level of service, the report does not provide a full picture of the true impact of increased train activity at the City's grade crossings.

Upgrades and Maintenance- The City is concerned about the initial cost and future maintenance of crossing guards and surrounding area. Not only would the City's roadway crossings, which include gates, lights, signalization, medians, and other items, have to be upgraded, pedestrian crossings will need to be improved as well, which can include sidewalks, pedestrian guards and signs, pavement markings, and raising the approach to tracks. Supplementary documents from AAF state they would cover costs for upgrading and maintenance associated with double tracking only, not including quiet zones upgrades. At present it is unclear what upgrades and maintenance will be covered by AAF, the report did not include this information.

In addition, upgrading and maintenance of two bridges, Taylor Creek and Avenue C, is also a concern for the City. According to the DEIS report, the Taylor Creek bridge would be rehabilitated, though details were not presented in the report. Avenue C Bridge however was not discussed at all in the document. The AAF project

will increase the number of trains per day, and as a result frequency of road closures will also rise. A result, road closures will impact shifts in traffic patterns. Commuters will presumably utilize Avenue C as well as Citrus Avenue overpass more frequently to bypass the increased train traffic.

As previously stated the Avenue C Bridge (Figure 1), an older single track bridge, needs to be upgraded to assist with train and road traffic flow. Since it is a single track, only one train can cross at a time, thus train switching before or after the crossing is necessary. This creates traffic flow problems at crossing intersections. Consequently, we will see traffic build ups at crossing intersections, such as Seaway Dr., Avenue D, Avenue A, Cedar Place, Avenue C, and the Citrus overpass.



Figure 1: Avenue C Bridge



Figure 2: Citrus Avenue Overpass

Traffic increase on Citrus Avenue overpass (Figure 2) is also concerning. If the AAF project moves forward the overpass will require inspection. Additional traffic, an expected result from the AAF project, will put increased stress on the overpass. AAF should work with the City to assist with upgrading and maintaining the overpass. Their assistance will help ensure the overpass meets safe load carrying capacity standards. For the safety of travelers going over the train tracks on Citrus Avenue Overpass, it is imperative that it undergoes rehabilitation.

Speed- The DEIS report estimates train speeds may be in excess of 110 miles an hour at the Savannah Road crossing. Speed in the downtown area is expected to be between 40- 60 miles per hour. Trains moving through City center at those speeds pose obvious concern for community and wildlife safety. The report acknowledges a sealed corridor will be in place, but does not provided detailed information on the type of sealed corridor. An 8ft chain link fence would not be aesthetically pleasing, nor is it consistent with our code standards for our historic district and redevelopment areas. Since the FEC rails run through the middle of our community the material of the sealed corridor must be compatible with the aesthetics in our area. This is to avoid disruption to the look and feel of our areas. With trains moving through our community on a regular basis, an unattractive, sealed corridor will create the feel of a barrier between neighborhoods.

Marine Navigation:

The DEIS report states the Taylor Creek railroad bridge would be rehabilitated. However, no details were provided. In 2007, the Taylor Creek Charrette was completed. At that time it was recommended to replace the current Taylor Creek Bridge with a vertical lift style bridge. The Treasure Coast Regional Planning Council team, during this time met with an FEC Representative, whom deemed a Vertical Lift bridge feasible and the preferred option (TCRPC, 2007).

Replacing the bridge would allow boats to travel from the Indian River Lagoon through Taylor Creek and spurring economic development. A major facet of the Taylor Creek Charrette was the discussion of expanding marine industry opportunities. To accomplish expansion of the marine industry it was identified improvements of the bridge were necessary. If the bridge were to be modernized to a vertical lift bridge it would not only update an old outdated bridge, but also be a catalyst for redevelopment, by allowing for marine navigation into the area.

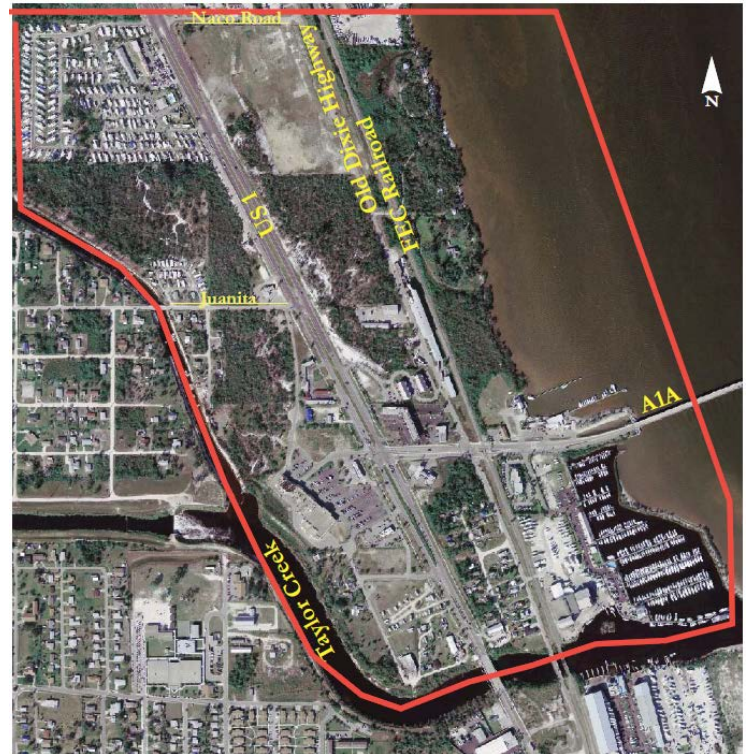


Figure 3: Taylor Creek Charrette area.

Other Transit:

The City wants to maintain our multi-modal connectivity and optimal level of service. However, the DEIS report did not speak to this issue specifically for Fort Pierce.

Bicycle/ Pedestrian:

Ensuring safety near the tracks is another concern, especially for residents who travel by alternative transportation modes such as walking and bicycling. The FEC rail line runs through Ft. Pierce's lowest income areas (Census tracts 380100, 380200, 381000) the residents in these neighborhoods are more likely to use alternative forms of transportation and have higher probability to travel back and forth over the tracks. With the increase in trains per hour, risk for these travelers will greatly increase. Safety of these travelers is very important to the community, the DEIS does not provide in depth information on its plans to create safe pedestrian areas near and around the rails.

Public Safety and Emergency Response:

Consistent with impediment of traffic operation level of service, is the obstruction of connectivity between major areas of the City. While once considered a benefit when passenger rail stopped in the community, the train is now seen as a disadvantage. The rail line currently cuts through major economic hubs and divides the mainland from North and South Hutchinson Island. The City sees the influxes of trains passing through the community as a hindrance to ensuring levels of connectivity between neighborhoods as well as between the mainland and the islands. Maintaining connectivity is important, especially for ensuring our emergency responders, Fire, Rescue and Police response, can respond without hindrance. The DEIS does not address the impact the additional trains will have on our emergency responders. Additionally, in the event of an evacuation be it manmade or natural, how would the FEC respond? Would they stop the trains? Do they have an evacuation plan in place? Furthermore if these trains were used to evacuate other communities in Florida, what is the FECR response to the

negative impact it would oppose on our community. All these questions are not sufficiently answered by the report.

Recommendations:

- Analyze of all our grade crossings, so that we have sufficient information on the impacts to the community;
- Provide further information regarding bicycle and pedestrian level of service;
- Implement adequate safety measures for pedestrian and bicycle areas around and on the track;
- Update crossings, ensuring they are ADA compliant;
- Implement improvements to Avenue C bridge;
- Implement improvements, such as vertical lift, to Taylor Creek bridge;
- Provide detailed information of the sealed corridor ;
- Research multi-modal connectivity and level of service in the Fort Pierce area; and
- Provide plans demonstrating how evacuation procedures will be impacted by trains, especially for trains that may be stopped for switching and blocking evacuation routes.

Land Use, Noise, & Vibration**Existing Land Use:**

The description of St. Lucie County as “low density and undeveloped lands” is a clear misrepresentation of our area. The City of Fort Pierce, established in 1901, is one of the oldest communities on the east coast of Florida. Ft. Pierce today remains a vibrant community with a rich history that includes a close relationship with the FEC rail line. The City became an important location for the rail line when Henry Flagler designated Fort Pierce as a division point in 1911. Earning this designation facilitated exponential growth for the City, as well as establishing Fort Pierce as a pivotal location for freight train operations. Even though Fort Pierce is a significant location for the FEC, land use information provided within the DEIS report relating to Fort Pierce was incomplete and inaccurate.

Noise:

Noise pollution, already a negative externality currently impacting our residents, is one concern Ft. Pierce wants to be proactive in mitigating. Noise pollution includes noise generated by wheels, flanging, idling, whistles blowing, and railroad switching. With additional trains running through the middle of the community, increased noise will unquestionably bolster the negative externalities already impacting residents, something the City is very concerned about. The DEIS report did not adequately address the negative externalities associated with increased train trips. The report addresses existing conditions, but we contend the report did not sufficiently forecast future conditions. It is important to understand fully the noise impacts, so that plans can be made for mitigation efforts.

Quiet Zones:

The possible need and costs to the municipality for Quiet Zones or other noise mitigation alternatives is a concern for the City. If the AAF project moves forward and noise is an issue, it is recommended that the AAF upgrade all FEC crossings guards to meet Quiet Zone standards at their costs and not pass those costs onto Cities. Alternatively, if AAF does not fully fund Quiet Zones, and the City wishes to pursue them – Staff recommends that they join with other governments to work with the Treasure Coast Regional Planning Council in a joint application for funding.

Historical Structures and Districts:

The DEIS report currently does not specify how additional vibration will affect homes and business located near the FEC rail. A majority of housing and commercial stock in the City of Fort Pierce is located near the rail line. A fuller understanding is needed to evaluate the true consequence of vibration to our structures, since a majority

of our historically significant properties, both commercial and residential, as well as an entire community enclave, Edgartown, is located very close to the rail line. Many of these buildings were built between late 1900's to 1950. The report poorly conveys how the vibration will negatively affect these areas. Concerns regarding vibration on these older buildings are a great concern for the City. Three different historic districts are located throughout the FEC corridor: the Downtown Historic District, as well as the Edgartown Settlement and the Rivers' Edge Historic Districts. Additionally, numerous properties are on the National Register of Historic Places but not addressed – including the Sunrise Theater, Cresthaven/Boston House, Old City Hall, the Moore's Creek Bridge (aka "tummy tickle hill") and Old Fort Park. The Sunrise Theater may be part of the number of auditoriums listed that are impacted by noise and vibration; however they were presented as a number only without a corresponding list, it is impossible to determine what the impacts are to the theater both to the structure and to performances.

Along with vibration is the concern about the possibility of a sealed corridor. If a sealed corridor is to be built in the downtown, the City does not want chain link fence to be an option. Aesthetically it does not fit the look and feel of downtown nor is it allowed or compatible with the design standards. A chain link fence will be a hindrance to the City's redevelopment and historic preservation efforts. The FRA did not reach out to City staff to get a better understanding of the City's historic area, which calls into question their ability to evaluate the effects of vibration to these buildings. Chain link is not an allowed use in our redevelopment area, nor is it an allowed material in the historic areas.

Recommendations:

- Provide a more in-depth quantitative and qualitative evaluation on spill-over costs and negative externalities from noise;
- Provide further detailed research on impact of noise and vibration on historic structures; and
- Improve communication with City of Fort Pierce Planning Department staff.

Environmental Conditions

It's imperative that environmentally sensitive locations such as Savannah Preserve, Old Fort Park archeological site, Indian Hills Recreation Area, the Indian River Lagoon and other coastal waterways are not destroyed or in any manner damaged. Savannah Preserve is a State Park running through Fort Pierce and St. Lucie County comprised of environmentally sensitive land in freshwater marshes and is perhaps the largest single remaining piece of east coast savanna land. In addition to other environmentally sensitive lands adjacent to the tracks, the report does not address impacts to the migration corridors. Also missing is a discussion impacts to threatened and endangered species like gopher tortoises, indigo snakes, bobcats, scrub jays and numerous other birds, on the "protected species" lists. Nor does the report address impacts any of the protected plants that are on the state or federal lists. The DEIS report does not address in any detail on how train traffic will impact these areas, nor offers any mitigation measures to ensure these sensitive areas will be protected over time. Thus, the City contends the DEIS is incomplete in this section.

Recommendations

- Provide detailed impact analysis on our local environmental areas;
- Provide wildlife crossing areas through the use of culverts; and
- Provide detail environmental mitigation plans

Hazardous Materials and Solid Waste Disposal

Hazardous materials and solid waste disposal is not discussed except during construction period. This section is vague and does not give any substantive detail specific to any area. The report also is ambiguous about how they will handle mitigation efforts after construction period. How the AAF will prevent or mitigate any hazardous

material spills or solid waste leakage is unclear. Additionally, the report claims there are 337 potential contaminated sites, but does not discuss any details regarding any of the sites.

Recommendations:

- Provide detailed information on prevention and mitigation of hazardous material spills or solid waste leakage;
- Provide detailed information on where the contaminated sites are located; and if sites are located in our area provide plans of site cleanup.

Social, Economic, & Community Impacts

Environmental Justice:

The majority of minority and low income residents in St. Lucie County identified by the DEIS report live in Ft. Pierce. The City has been working toward improving the quality of life not only for these community members, but for the entire Ft. Pierce community. Increased train traffic running three times per hour will negatively affect the quality of life, resulting in lasting negative effects for the entire community. Although the report drew attention to the low income and minority census tracts, it failed to provide any research on passenger rail and social equity. They failed to address issues such as barriers to integration, taking of land, and health. Until this section of the DEIS report addresses those and similar issues, the section should be considered incomplete.

Economic Impacts:

The AAF project is expected to create spill-over costs. Negative externalities such as increased train noise and vibration, additional traffic delays, and an unattractive sealed corridor may spur direct and indirect negative economic impacts to the Fort Pierce community. Loss of investment in Historic Fort Pierce Downtown, real estate degradation of commercial and housing properties, and loss of tourists' dollars to the local area, have all been identified as most concerning to the City.

Fort Pierce and surrounding Treasure Coast communities will be absorbing all the costs with no benefits. Economically, the current proposed project does not benefit our local area. The DEIS report did not sufficiently discuss potential positive or negative economic impacts to Fort Pierce or similar areas, that will not be getting a stop. The report only discussed positive externalities and economic opportunities that will be spurred in cities with train stops. It is imperative the report identify both positive and negative impacts for all areas that will be affected by the project.

Historical & Cultural Resources:

Preservation of Historical and Cultural Resources is important to the City of Fort Pierce. The City's restoration and preservation efforts have been and continue to be a top priority. Fort Pierce historical buildings were built as long ago as 1882. The typologies of these historic buildings vary from wooden frame, clay, concrete, and marble. Many of the oldest buildings are concentrated downtown and along the river and railroad (Appendix A: Historic Structures and Sites). The impact of additional trains per day on these various historical structures in these areas is unknown. Review of the DEIS report found the FEC did not sufficiently research Fort Pierce historical and archeological sites, nor did they adequately seek local planner comments regarding local historic resources. The report states they contacted our department, however there is not a planner on staff with the City or County who can verify that. There was no reporting or researching included regarding the archeological site at Old Fort Park, the Ais Indian burial mound at Old Fort Park.

Since the FRA did not accurately or sufficiently identify local resources, they did not address the possible negative economical and physical impacts to our community. Increased trains will impact our historical, archeological, and culture resources, but the impacts are currently unknown, due to their lack of research.

Furthermore, FRA did not discuss any mitigation plans addressing how AAF would protect historic and archeological sites. Overall we find this section of the report lacks completeness. We have attached several maps in the Appendix showing the historical resources.

Recreational Resources:

The FEC rail travels along or near several parks including Savannas Preserve State Park , Indian Hills Golf Course, Heathcote Botanical Gardens, Ilous Ellis Park (aka “Open Space Park”) and Indian Hills Recreation Area. Concerns over maintaining and preserving these open, passive spaces have been identified. The report stated there will be some impact from noise and vibration, however they do not speak specifically to our park areas nor do they offer any mitigation plans to protect these valuable areas.

Recommendations:

- Research the economic impacts on historical areas;
- Reevaluate of all historical structures and sites;
- Address impacts on all historical building typologies;
- Improve communication with City of Fort Pierce Planning Department staff; and
- Reevaluate impact on local recreation areas.

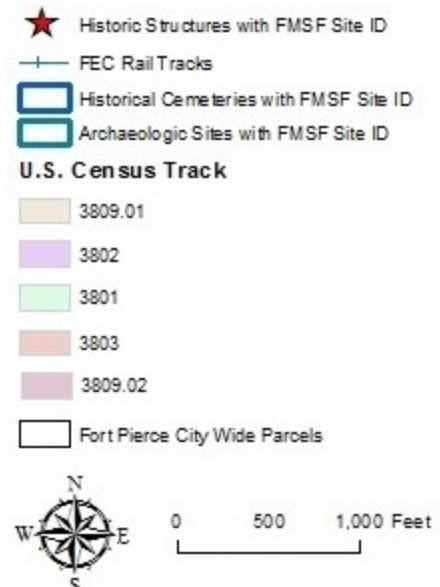
Conclusion

The AAF project is expected to impact the City, however there is not enough information presented in the DEIS to fully evaluate the report and gauge the full extent of the impact. The report lacked meaningful, quantifiable data that could be utilized to evaluate the additional traffic delays; impacts to grade crossings, effects on roadways and adjacent neighborhoods, and most importantly the true costs to the City. The City of Fort Pierce respectfully requests that All Aboard Florida reevaluate the report and provide actual data, not brushstroke statements.

Attachments – Appendix A: Historical Resources in Fort Pierce

Appendix A: Historic Structures and Sites

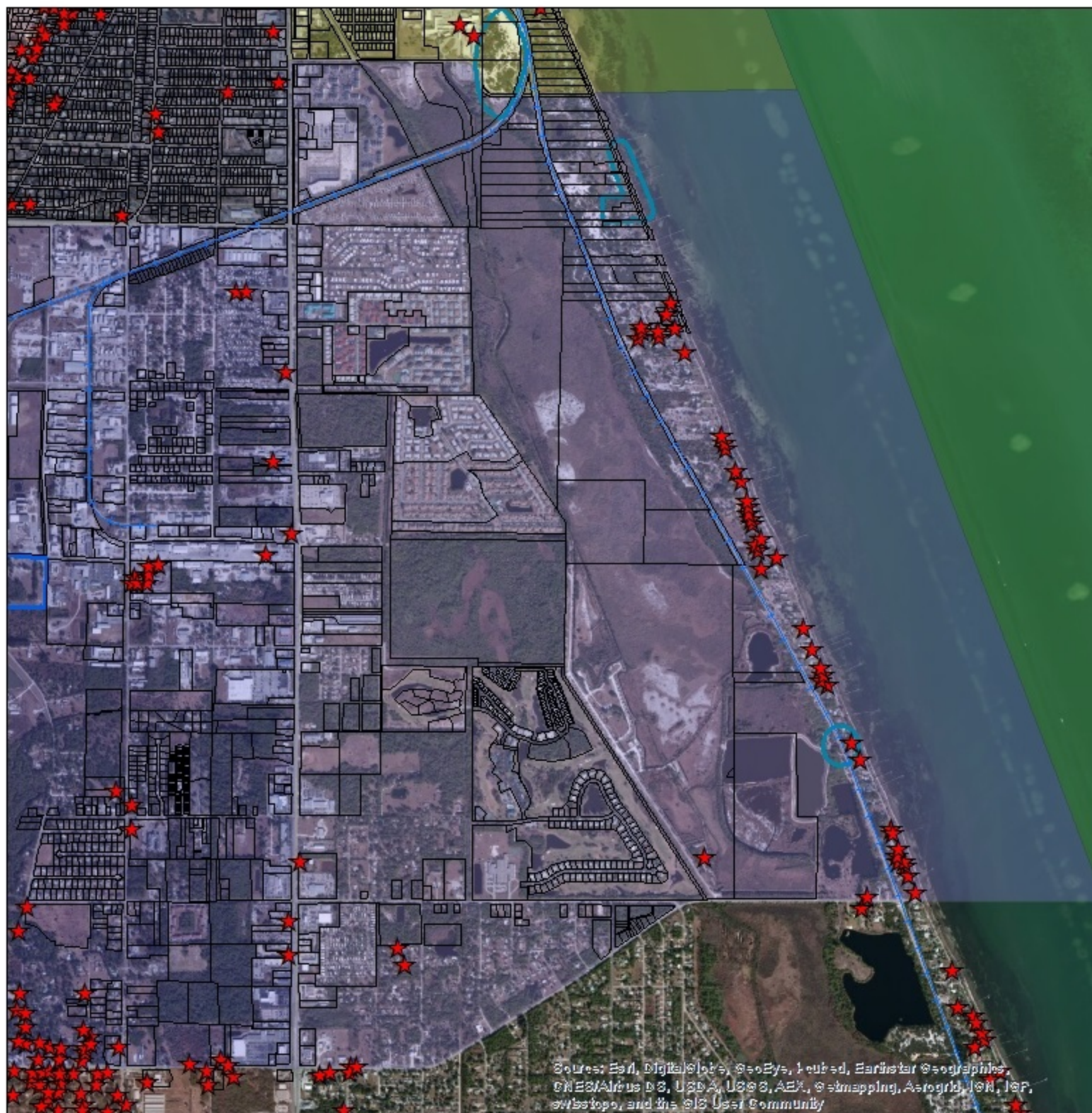
Fort Pierce Historic Resources



Sources: Esri, DigitalGlobe, GeoEye, Earthstar Geographics,
 CNES/Airbus DS, USDA, USGS, Aero, GeoEye, IGN,
 GeoEye, and the GIS User Community

Map prepared November 4, 2014

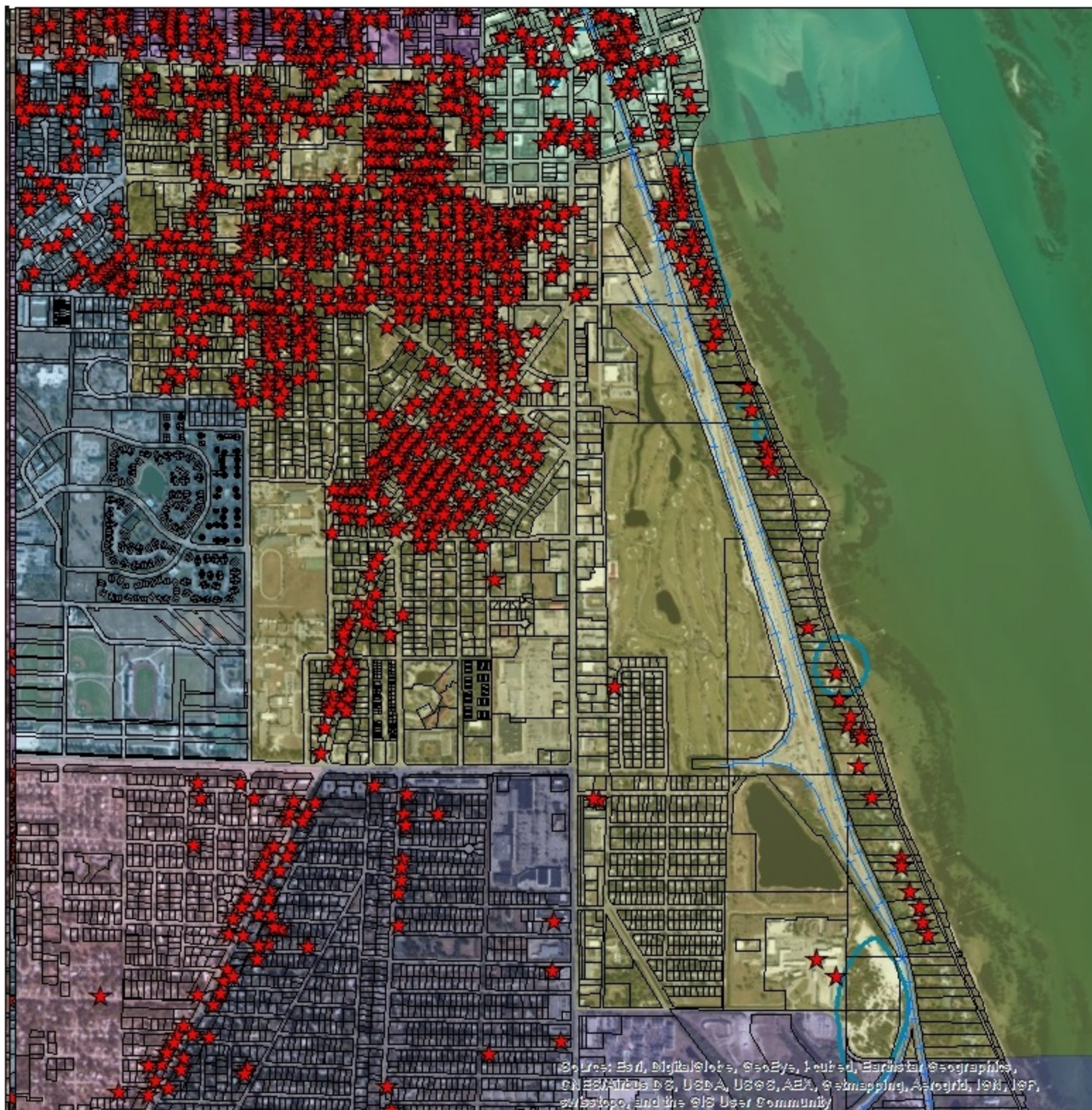
Fort Pierce Historic Resources



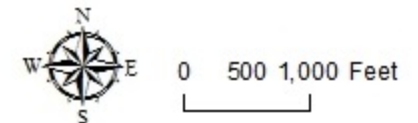
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, IGP, swisstopo, and the GIS User Community

Map prepared November 4, 2014

Fort Pierce Historic Resources



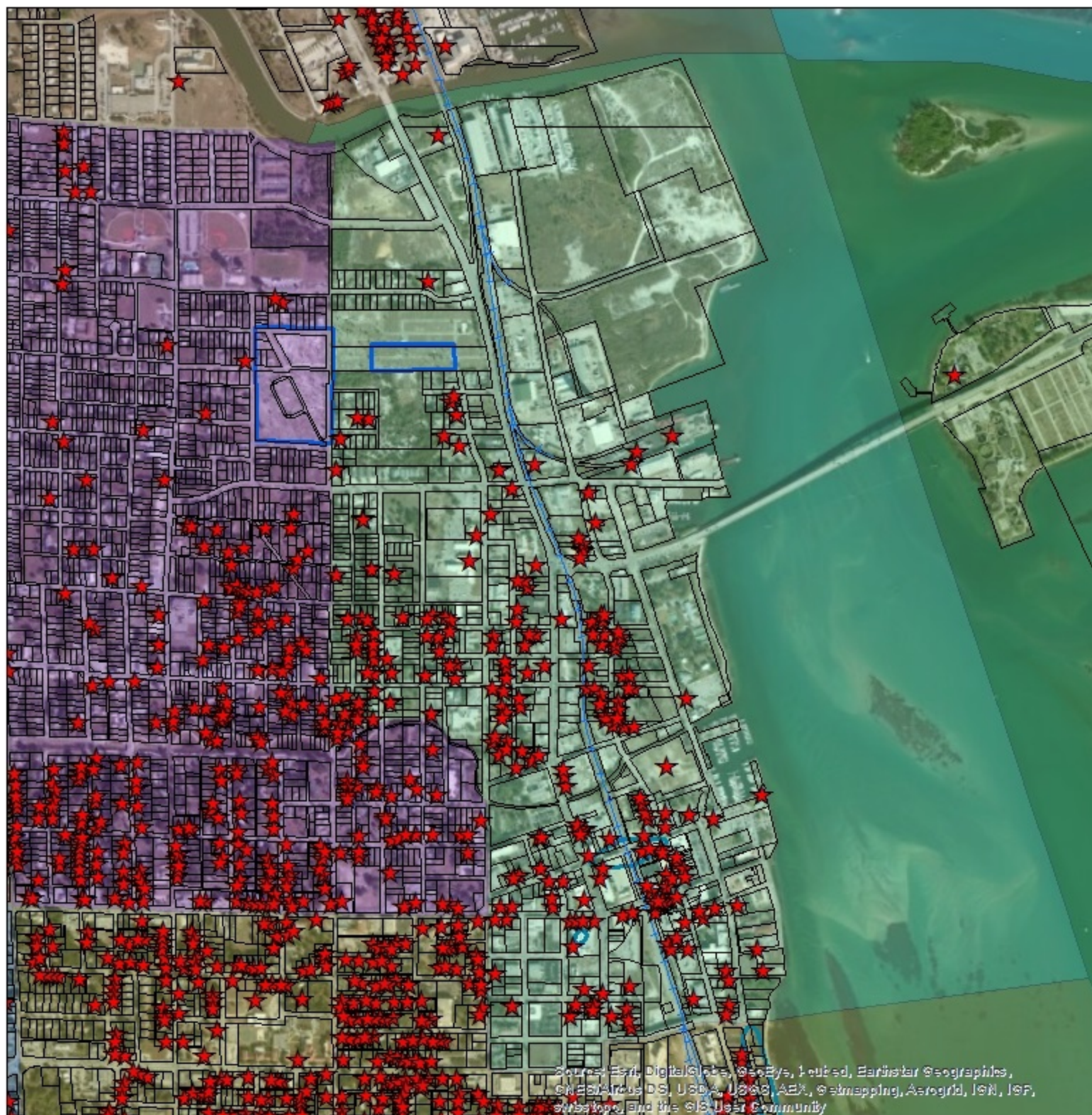
- ★ Historic Structures with FMSF Site ID
- FEC Rail Tracks
- Historical Cemeteries with FMSF Site ID
- Archaeologic Sites with FMSF Site ID
- U.S. Census Tract**
- 3801
- 3802
- 3804
- 3805
- 3814.01
- 3806
- Fort Pierce City Wide Parcels



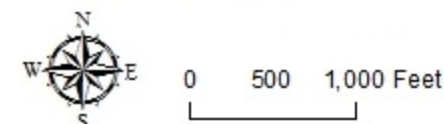
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, Aero, GeoMapping, AeroGRID, IGN, IGP, swisstopo, and the GIS User Community

Map prepared November 4, 2014

Fort Pierce Historic Resources



- ★ Historic Structures with FMSF Site ID
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- Historical Cemeteries with FMSF Site ID
- Archaeologic Sites with FMSF Site ID
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- 3809.01
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Sources: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, IGP, Swiremap, and the GIS User Community

Map prepared November 4, 2014

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

December 3, 2014

Mr. John Winkle
Federal Railroad Administration
1200 New Jersey Avenue, SE Room W38-311
Washington, DC 20590

**RE: All Aboard Florida Passenger Rail Project Draft Environmental Impact Statement
and Section 4(f) Evaluation**

Dear Mr. Winkle:

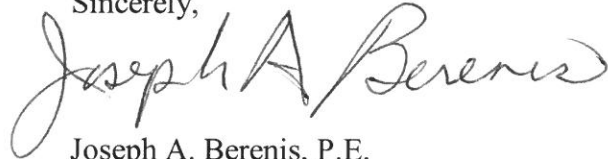
The Central Florida Expressway Authority (Authority), formerly known as the Orlando-Orange County Expressway Authority or OOCEA, has reviewed the referenced document and has the following comments.

1. Although the Authority has been working with All Aboard Florida (AAF) representatives for several years and preliminary agreements have been executed, all agreements necessary for the passenger rail to be constructed within the Authority's right of way are not finalized as is referenced in several sections of the DEIS. However, the Authority is willing to continue the ongoing coordination to ensure the appropriate agreements are executed if an acceptable alignment option is identified.
2. In section 3.2.3 *Level 3 Screening – East West Corridor Alignment Options*, the DEIS presents several alignment options that have varying impacts to the Authority's SR 528 right of way (see Figures 3.2-4 and 3.2-5).
 - a. Option 3A, which would locate the proposed passenger rail tracks within the Authority's existing 300 foot right of way, is not acceptable. This option could potentially impact the future operations and expansion of SR 528. The Authority would not grant permission for this option.
 - b. Option 3C, which proposes the passenger rail tracks "straddle" the SR 528 south right of way line, is not preferable to the Authority. The DEIS states "According to AAF, Option 3C would not preclude the future expansion of SR 528." While this statement may generally be factual, locating the tracks within the existing SR 528 right of way will limit the Authority's future opportunities for maintaining and expanding its system and possibly result in increased costs. At this time, given the preliminary level of details, the Authority would not prefer this option.
 - c. The Authority has no preference or objection to Option 3D, which proposes locating the passenger rail tracks in a new corridor located approximately 400 feet south of the existing SR 528 right of way.

- d. Option 3E, which proposes to locate the new passenger rail tracks on average between 100 and 200 feet south of the southern edge of the existing SR 528 right of way, is acceptable to the Authority. The Authority is willing to continue the ongoing coordination with the adjacent property owners to obtain the right of way necessary to implement this option. Additionally, the Authority is willing to continue the ongoing coordination with AAF to refine this option and ensure a design acceptable to both parties is developed.
3. In general, the Authority is supportive of the AAF passenger rail project as long as its implementation does not hinder the Authority's ability to serve the transportation needs of the region in accordance with Florida State statutes and satisfy the requirements of outstanding bond covenants.

The Authority appreciates the opportunity to review the DEIS and looks forward to further coordination with AAF and the Federal Railroad Administration as appropriate.

Sincerely,

A handwritten signature in black ink that reads "Joseph A. Berenis". The signature is fluid and cursive, with the first name "Joseph" and last name "Berenis" clearly legible.

Joseph A. Berenis, P.E.
Deputy Executive Director

cc: Chairman Cadwell
G. Pressimone
N. Silva, Atkins

City of Vero Beach

1053 - 20th PLACE - P.O. BOX 1389
VERO BEACH, FLORIDA 32961-1389

OFFICE OF THE DIRECTOR
PUBLIC WORKS



November 18, 2014

John Winkle
Federal Railroad Administration
1200 New Jersey Avenue, SE
Room W38-311
Washington, DC 20590

Via Email: AAF_comments@vhb.com

**Re: All Aboard Florida – Draft Environmental Impact Statement
City of Vero Beach, Florida**

Dear Mr. Winkle:

Attached herewith and as authorized by City Manager, James R. O'Connor, please find comments from the City of Vero Beach, Florida for the All Aboard Florida Draft Environmental Impact Statement (DEIS). We trust that these comments will be considered along with those of other government bodies regarding the impact of the proposed high speed rail system on our communities.

Please contact us if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "Monte K. Falls".

Monte K. Falls, PE
Public Works Director

Cc: James R. O'Connor, City Manager
Wayne Coment, City Attorney
Dylan Reingold, County Attorney, Indian River County

MKF/ntn

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City of Vero Beach

1053 - 20th PLACE - P.O. BOX 1389
VERO BEACH, FLORIDA 32961-1389

OFFICE OF THE DIRECTOR
PUBLIC WORKS



All Aboard Florida High Speed Rail System Draft Environmental Impact Statement

General Comments:

- Federal Railroad Administration (FRA) diagnostic report delivered 9/23/14.
- Draft Environmental Impact Statement (DEIS) delivered 9/19/14.
- 90% design plans scheduled to be complete by mid-December, 2014.
- Comments on DEIS due 12/3/14;
- Without 90% design plans estimation of project impacts is significantly diminished.
- DEIS should be considered incomplete without having 90% design plans available prior to comments being due.

Section 3 – Alternatives:

North/South alternatives appear to have been discounted due to the delay from (Land) acquisitions and (Track) use negotiations.

Page 3-35, in the Three Track discussion, St. Lucie County should be shown above the bullet "In the vicinity of Indian River Drive; and" in the section labeled "Indian River County".

Page 3-37, "The corridor will be fenced in locations where an FRA hazard analysis review determines that fencing is required for safety." Where is the FRA Hazard Analysis? Have the locations (to be fenced) been determined?

Section 4 – Affected Environment:

Page 4-3, Why were the land use plans for the cities not included in the review process?

Page 4-10, Indian River County's GoLine transit service is not considered in 4.1.2.3.

Page 4-10, Melbourne Airport and St. Lucie Airport are international airports and they were not considered in 4.1.2.4.

Page 4-64, Information contained in the statement, "The surficial aquifer system is a major source of drinking water in Indian River County. The Floridian aquifer system exists under artesian conditions in Indian River County. However, it is not generally a major source of potable water in the area due to high chloride concentrations (Marella 1999; Miller 1990)." is outdated and incorrect.

Page 4-100, Provide data that shows Lakela's mint is not within the study area.

Page 4-129, There are more than three archeological/historical resources located in Indian River County.

Page 4-131, Archeological Resources, the "Vero Man" site has been omitted.

Section 5 – Environmental Consequences:

Page 5-39, The report acknowledges that, "The Project would result in long-term noise and vibration adverse impacts to residents and properties primarily along the N-S Corridor." And that, "The Project will result in minor vibration impacts along the N-S Corridor due to the increase (approximate doubling) of vibration events as a result of added passenger train service to the existing freight operations."

Page 5-51, The report acknowledges that "Ground-borne vibration levels already exceed the FRA criteria along the N-S Corridor due to the frequency and nature of current freight operations. FRA guidance for assessing project impacts along such "heavily used rail corridors" (more than 12 trains per day) states that additional impact would occur if the project approximately doubled the number of trains (FRA 2012a)." Further, "As shown in Table 5.2.2-12, the Project would result in minor vibration impacts to 3,317 residential receptors and 513 institutional receptors, as well as 18 other vibration sensitive land uses (TV studios, recording studios, auditoriums, and theaters)." How will these vibration impacts affect the historical, archeological and recreational sites along the corridor?

Page 5-55, "Mitigation measures proposed for noise impacts (noise barriers or other measures as appropriate) and for vibration impacts (wheel and rail maintenance) would substantially reduce or eliminate these adverse impacts." Where are noise barriers proposed? Provide data which supports that increased wheel and rail maintenance will mitigate the vibration.

Page 5-127, Provide a breakdown of economic benefit by County.

Page 5-133, The report states, "The E-W Corridor and adding passenger trains to the N-S Corridor are not expected to adversely impact public health or safety." How will increasing the average speed on the N-S Corridor from 38.57 MPH to 103.34 MPH in Indian River County (Table 3.3-9) affect pedestrian fatalities?

Page 5-140, "Vero Man" archeological site is omitted. Since this is an active archeological site vibration impacts could be detrimental.

Page 5-143, In Section 5.4.6, Recreation and Other Section 4(f) Resources, there is no mention of Pocahontas Park and potential impacts.

Section 7 – Mitigation Measures and Project Commitments:

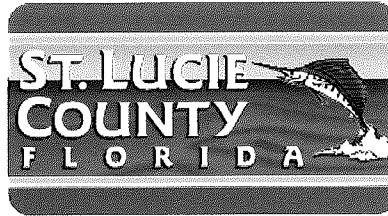
Without the 90% construction plans it is premature to thoroughly review Section 7.

Page 7-6, How will the determination be made to install ballast mats?

MKF/ntn

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**BOARD
OF COUNTY
COMMISSIONERS**



Paula A. Lewis
COMMISSIONER

November 25, 2014

Mr. John Winkle
Federal Railroad Administration
1200 New Jersey Avenue
SE Room W38-311
Washington DC 20590

RE: St. Lucie County Board of County Commissioners Response
All Aboard Florida – Draft Environmental Impact Statement

Dear Mr. Winkle:

Please accept this letter signed by all the members of the St. Lucie County Board of County Commissioners and attachments as response to the Draft Environmental Impact Statement (DEIS) for the All Aboard Florida project. At the regular Board of County Commission meeting held Tuesday, November 18, 2014, the Board also voted unanimously to forward this response to the Federal Railroad Administration.


First, the Board wants to express its collective frustration, and that of the citizens of St. Lucie County, with the lack of meaningful public input provided in the DEIS process. Second, the Board wants to express the collective opinion that the DEIS completely overlooks the major impacts to the residents, businesses and environment of St. Lucie County. This failure in the report to acknowledge that the project will impose all the impacts without any benefit whatsoever indicates that no meaningful impact analysis was conducted. This sentiment is underscored in the attached staff memorandum containing dozens of comments, concerns and questions directed at the complete lack of impact analysis contained in the report.

In addition to the staff memorandum, the Board of County Commissioners would like to add the following points:

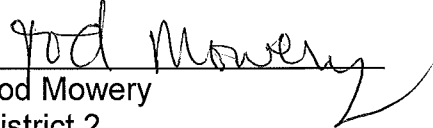
- The Board requests that the FRA extend the Final Environmental Impact Statement (FEIS) process comment period similar to DEIS process.
- The FRA should require that those preparing the FEIS come to St. Lucie County and conduct actual analysis of the social, economic, transportation network, noise, vibration, environmental justice, archeological, cultural resource, air and water quality, environmental, public safety and land use impacts on the residents, business and environment of this County.
- The FRA should require that those conducting the Alternative Routes analysis consult with the Florida Department of Transportation for consistency with the State Transportation Plan. Also, consult with FDOT District 4 on the plans to construct a new north bridge in Fort Pierce.
- The FRA should challenge the All Aboard Florida view that the "railroad was here first" mentality. Actual history indicates that subsequent to the Native Americans residing here, settlement of St. Lucie Village and Fort Pierce long pre-date the arrival of the railroad.

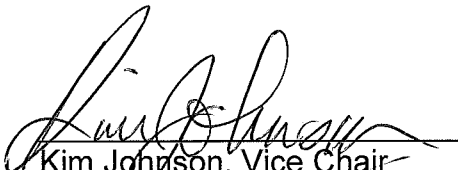
It is the position of the entire Board that the Final Environmental Impact Statement must fully acknowledge the negative project impacts effects, provide meaningful analysis of how St. Lucie County will be affected, and offer relevant mitigation within St. Lucie County for these impacts.

Regards,


Paula A. Lewis, Chair
District 3


Chris Dzadovsky
District 1


Tod Mowery
District 2


Kim Johnson, Vice Chair
District 5


Frannie Hutchinson
District 4

Attachments



**Planning and Development
Services Department
Planning Division**

MEMORANDUM

TO: Board of County Commissioners
FROM: Mark Satterlee, AICP, Planning & Development Services
DATE: November 13, 2014
SUBJECT: All Aboard Florida Draft Environmental Impact Statement - Staff Report

Background

The All Aboard Florida (AAF) project proposes passenger rail service between Miami and Orlando with stops in Fort Lauderdale and West Palm Beach. The project consists largely of the installation of a second track in the existing FEC right-of-way.

AAF has applied for a Railroad Rehabilitation and Improvement Financing (RRIF) loan from the Federal Railroad Administration (FRA). As part of the National Environmental Policy Act (NEPA), an Environmental Impact Statement (EIS) is part of the federal process to receive funds from any federal agency. The Draft EIS report was issued on September 19, 2014 and has a 75-day comment period. The comment period ends on December 3, 2014.

On October 1, 2014, St. Lucie County staff initiated a review of the DEIS with regard to the required analysis of the projected impacts on St. Lucie County.

Staff Review

The bulk of the analysis is contained in the 500-page document is in Chapters 4 and 5. Most of the comments, concerns and questions are directed at the information contained therein. Staff also pointed out obvious errors in the report.

This memorandum consists of the dozens of comments generated by staff and also includes comments from St. Lucie Village, Fort Pierce Police and the St. Lucie County Fire District Resolution. The staff review consisted of parceling up the document into sections to be reviewed by the department and staff most closely aligned with the subject matter. That said, staff cannot claim to have the professional expertise to conduct substantive review or analysis of some document segments – such as noise and vibration. So, even if the analysis were more complete, staff would likely recommend that other experts be retained to assist in the review. For these reason, a primary recommendation should be that St. Lucie County be afforded an opportunity to

provide supplemental comments to FRA particularly as it relates to Economic, Environmental Justice, Noise, Vibration and Public Safety concerns.

St. Lucie County response to the DEIS provided by:

Mark Satterlee, AICP, Planning & Development Services Director
Leslie Olson, AICP, Planning Manager
Monica Graziani, Building & Code Regulation Manager
Amy Griffin, Regulations Manager, Environmental Resources Department
Donald West, P.E., Public Works Director
Patrick Dayan, P.E., Senior Project Engineer, Public Works
Jason Bessey, Stormwater Program Coordinator, Water Quality Division
Beth Ryder, Director, Community Services
Tom Daly, Emergency Management Coordinator
City of Fort Pierce Police Department
Richard V. Neill, Jr., Esquire, St. Lucie Village
St. Lucie County Fire District

Findings

In general, it is the opinion of staff the AAF DEIS is mostly a glossing over of a majority of the issues required to be analyzed in the document. While it appears that some issues did receive a more substantive review – the Environmental and Navigation issues, in particular – close analysis reveals that specific impacts to St. Lucie County are simply not addressed. Further, impacts such as Economic, Transportation, Environmental Justice, Noise, Vibration and Public Safety were not subject to a meaningful and substantive review. The bottom line is that the County will receive all the impacts and none of the benefits from the project.

The tone of the entire DEIS clearly favors the desired outcome of using the existing FEC corridor with the primary rationale being that because the FEC corridor has been in existence for such a long time that any new or additional impacts are marginal at best and in most cases simply not significant enough to warrant deeper analysis. As a result, staff's comments, concerns and questions are directed towards the lack of information or omitted information. Further, it appears that specific impacts on St. Lucie County have mostly been ignored since there is almost no acknowledgement of the potential impacts of significant increase in rail activity to such places as the City of Fort Pierce, St. Lucie Village, residents in northern Fort Pierce and along Indian River Drive or the numerous County Preserves that line the corridor.

It is also the opinion of staff that the Route Alternatives section of the report did not conduct a meaningful analysis of routes other than the existing FEC right-of-way. It is understood that from a purely economic view, use of the existing corridor is the easiest and most cost effective solution for FEC and AAF. However, for the impacted communities and the interests of the greater good of the transportation needs of

Southeast and Central Florida, it would seem that the EIS process would be the obvious venue to require this broader alternative analysis be performed in a truly meaningful way.

Planning & Development Services

Chapter 4 – Affected Environment

Page 4-2 - 4.1.1.2 Affected Environment: Existing Land Uses. In addition to low density residential uses and undeveloped lands, the FEC ROW passes through preserve and park lands, commercial and services, industrial and medium density residential.

Page 4-4 – Comprehensive Plans: Only plans are listed for counties on the route. All municipalities along the route also have comprehensive plans, including the City of Fort Pierce and St. Lucie Village in St. Lucie County.

Page 4-13 – Table 4.1.2 – 1: This table is out of date as it lists I-95 through SLC as consisting of 4-6 lanes. FDOT has nearly completed the 6-8 lanes through the entire county. The DEIS purports to consider transportation infrastructure in Section 4.1.2. However, it does not acknowledge the following St. Lucie County transportation infrastructure: 4.1.2.3: Does not address St. Lucie County's transit program; and 4.1.2.4: Does not address St. Lucie County's International Airport or customs facility.

Page 4-27 – 29 Economic Impact: There is no meaningful economic analysis related to the impacts of additional trains and crossing closings frustrating access to businesses. Nor is there any analysis of potential impacts to property values of increased noise, vibrations and access to business or residences. Of particular concern is the lack of awareness of the potential economic/property value impact in downtown Fort Pierce, the barrier islands, along Indian River Drive and St. Lucie Village.

Page 4-37 – Figure 4.2.2-1 Sound Levels of Typical Noise Sources: This figure leaves out the noise level (dBA) created by a diesel locomotive traveling at 90+ miles per hour which is the speed suggested in the EIS for St. Lucie County.

Page 4-59 – Map: Taylor Creek is mislabeled as "Taylors Creek."

Page 4-60 – Table 4.3.4-2: Moore's Creek is mislabeled "Moore Creek."

Page 4-77 – Table 4.3.4-2 Floodway Crossings: St. Sebastian Creek is in Indian River and Brevard Counties.

Page 4-104 – Table 4.4.1-1: St. Lucie Village is not identified in the table nor is it described in the ensuing text in this section.

Page 4-102 – Environmental Justice: The DEIS recognizes the high concentration of Environmental Justice communities in St. Lucie County but fails to perform an adequate analysis of the impacts and benefits of this project on these communities:

Executive Order #12898 acts to ensure that federal funding balances the impacts and benefits of funded projects on minority and disadvantaged persons and communities. The DEIS accurately identifies but does not adequately assess the Environmental Justice communities within the project study area. It shows St. Lucie County has the second highest population of non-white populations, and the lowest median income of all counties within the project area. It identifies St. Lucie County as the second lowest household income of all affected census tracts and second highest concentration of low-income populations within the project area.

While the fundamental goal of environmental justice intends to balance benefits with impacts on identified minority and disadvantaged communities, this project places all impacts on a community with a very high concentration of environmental justice communities while providing no benefits. It is significant that this is a multi-modal transportation project which proposes no transit benefits to environmental justice communities in need of such facilities. This issue is not identified and should be addressed and analyzed in final EIS. Providing a rail station for the City of Fort Pierce could act to mitigate this environmental justice conflict.

Page 4-115 – Table 4.4.4-1: 27 crossings are listed in this table for St. Lucie County. However, other tables list 21 crossings.

Page 4-119 – Barriers to Handicapped and Elderly: No analysis.

Page 4-125 – Cultural Resources: The DEIS does not recognize a number of historic and archeological resources in unincorporated St. Lucie County. Therefore, the DEIS cannot accurately analyze the impacts to the following resources:

The following archeological resources are within the subject study area as defined on figure 4.4.5-1, and are identified on their Florida Master Site Files as “recommended for preservation and further study,” and “insufficient information to determine National Register eligibility.” Upon development review, if such a resource is identified, the County requires a Phase One archeological survey in order to commence development. The following archeological sites were not listed in the DEIS:

1. 8SL 3063 Savannahs North Dune
2. 8SL 1720 4521 South Indian River Drive
3. 8SL 1719 1811 South Indian River Drive
4. 8SL 292 Walton Railroad #2

The following historic cemetery is not listed in the FMSF or this DEIS, but must be considered as it falls within the project study area:

- Palms Cemetery: 7201 South Indian River Drive

The County also owns an archeological site lying within the project study area, and in City of Fort Pierce limits: Old Fort Park (8SL3). This site is the location of a significant 10,000 year old burial mound (one of the largest on the East Coast of Florida,) the site of an Ais Indian village, and is significant for historical events, as it is the site of the U.S. military installation during the second Seminole War. Old Fort Park is listed both on the National Register and the local City of Fort Pierce register of historic places, and is not mentioned in the DEIS.

Furthermore, the entirety of the FEC ROW and project study area falls within the Indian River Archeological Zone as identified in "An Archeological Survey of St. Lucie County, Florida," (2002). The Indian River Archeological Zone is identified in the Archeological Survey as containing "more [archeological] sites than any other in the [countywide] survey. This is due to the fact that the Indian River Lagoon was used heavily during prehistoric times for procurement and settlement... This area, especially the western shore of the Indian River in the Fort Pierce and St. Lucie Village areas also played an important role in the early history of the County, and it is likely that many military and early pioneer sites are or once were located in this vicinity." The Indian River Archeological Zone Archeological zone is listed as an "A" density rating in the 2002 survey. This means that the Archeological Zone has a demonstrated high archeological site density. Section 4.11.13 of the St. Lucie County Land Development Code requires a Certificate to Dig for any "construction, demolition, large-scale digging, removal of trees or any activity which may reveal or disturb an archeological site in an archeological zone." For any development application within an archeological zone, St. Lucie County requires the completion of a Phase One archeological survey in the affected area. A Phase One archeological survey should be performed along the length of this route through St. Lucie County in keeping with the adopted Land Development Code, prior to any development activity in the project study area. The fact that the entirety of the project study area falls within an Archeological zone with a "A" site density rating increases the importance of a Phase One archeological survey prior to any development activity.

Chapter 5 – Environmental Consequences

Page 5-3 – Land Use – North-Corridor: The DEIS indicates that the St. Lucie County Comprehensive Plan supports the reestablishment of passenger rail service along the east coast. This is a true statement. However, what those policies represent is a desire for passenger rail service that provides service to the County. For many years, the City of Fort Pierce and St. Lucie County has sought the establishment of either Amtrak and/or Tri-Rail service and the comprehensive plan recognizes this aspirational goal. All Aboard Florida provides no service to St. Lucie County. Rather, the County only receives the impacts and no benefits. This is not consistent with the comprehensive plan.

Page 5-4 – Section 5.1.1.2 – Indirect and Secondary Impacts: The DEIS references “induced growth” but provides no definition. Presumably, this means that implementation of the project would stimulate development or other potentially beneficial economic benefit. The plan indicates that there is no induced growth other than that proposed at Orlando International Airport. Again, this underscores that the project provides no meaningful benefit to St. Lucie County. The County receives the impacts and no benefits. Further, without a station - which might induce activity in downtown Fort Pierce - the opposite may occur and the negative impacts of additional train traffic frustrating access to downtown may spur disinvestment or discourage new investment. However, this scenario is not covered here or in the economic impact section.

Page 5-8 – No Action Alternative: This section declares under the no-build option freight train configurations would increase to incorporate the anticipated annual cargo growth of approximately 3% annually through increase in train length and speed. The report further states that the demand for freight capacity is expected to grow along the North-South Corridor up to 18 trains per day in 2016. The projected increase in freight activity would result in minor increases in local roadway closures, but total impacts relative to existing conditions would be minimal. The report then pivots to indicate that failure to build the passenger train would result in greater congestion on SR 528, I-95 and the Turnpike.

What the report does not sufficiently address here or elsewhere is the increase in freight traffic with the build option and the resultant impacts across the system in St. Lucie County. With two tracks, freight traffic will be able to increase substantially even with the passenger service. This scenario addressed only to the extent there will be impacts on two of 27 crossings in St. Lucie County.

Page 5-27 – Fixed Bridges: EIS states that the conclusion of FRA is that elevating fixed bridges would not be feasible because of significant delays, costs, and risks associated with the use of elevated structures makes raising any of the corridor bridges not feasible. In the opinion of staff, this lack of substantive analysis is indicative of the pre-ordained, self-serving conclusions throughout the DEIS that any activity other than as proposed will not receive a meaningful review.

Pages 5-39 through 5-52 – Noise and Vibration: The conclusion of the Noise analysis is that despite increases in both passenger and freight train activity the proposed project will have no permanent noise impacts as a result of using wayside horns at crossing versus locomotive horns. Staff is not qualified to analyze the findings and suggests that professional technical assistance would benefit the County in better understanding the analysis provided and the actual impacts. However, consistent with much of the analysis contained in the DEIS that the findings are indicative of the pre-ordained conclusions that what is proposed will not substantively impact St. Lucie County.

Staff has the following questions and comments related to the information provided:

- It is not clear that this analysis includes locally requested quiet zones and what impact the implementation of quiet zones might have at crossings;
- As questioned earlier, the noise level information provided on Page 4-37 – Figure 4.2.2-1 Sound Levels of Typical Noise Sources, leaves out the noise level (dBA) created by a diesel locomotive traveling at 90+ miles per hour which is the speed suggested in the EIS for St. Lucie County.
- The summary of projected noise levels found on page 5-48 shows the dBA levels at crossings and along the mainline no higher than 63.1 dBA. However, this appears to contradict the noise level figure on page 4-37, which indicates that sound levels for an idling locomotive is more than 70 dBA and a diesel locomotive traveling at 50 mph at nearly 90 dBA.
- Table 5.2.2-10 Summary of Noise Levels for Residential Receptors, further confuses the issue stating that existing noise levels are more consistent with the findings on page 4-37 - but, despite increasing train traffic the future noise level will be consistent with a train traveling at 50 mph – or 74 dBA – versus what is stated in the table on page 5-48.
- The No-Action alternative actually appears to increase noise impacts because of the increase in freight activity – longer, faster and more frequent trains. However, the DEIS concludes that there would be no increase in noise impacts from the No-Action alternative.

The Vibration analysis is similarly difficult to analyze without technical expertise. The DEIS summary states that the greatest potential for vibration impact along the North-South Corridor is due to the increase in passenger train service to the existing freight activity. The report states on page 5-51 that “Ground-borne vibration levels already exceed the FRA criteria along the North-South Corridor due to the frequency and nature of freight operations.”

Page 5-122 – Social and Economic Environment – North-South Corridor: The report concludes early on in the analysis that because the train corridor has been in existence for more than 100 years, expanding the capacity within the corridor will not result in residential displacement, neighborhood fragmentation or the loss of community between neighborhoods. However, what the report doesn’t consider is that the dramatic increase in activity will create the following new impacts:

- Significant increase in crossing being blocked will serve to further frustrate access for residents living along Indian River Drive, St. Lucie Village and the barrier islands;
- Similarly, the increased closings will serve to frustrate business owners, customers, government officials, emergency responders, police, court officials and others accessing downtown Fort Pierce. There is no analysis of the traffic impacts to increasing congestion, potential significant changes to the traffic pattern along with access in and out of downtown.

Page 5-123 – 5.4.1.2 – Indirect and Secondary Impacts: This section states that the project will have positive indirect and secondary beneficial impacts by improving accessibility between Miami and Orlando. The section focuses on projected population growth in Orange County and WPB south. There is no mention of impacts (negative or positive) in the North-South Corridor.

Page 5-125 - Environmental Justice: This section evaluates whether environmental justice communities would bear impacts from the project would be predominantly borne by low-income or minority populations. The report states that the focus is on residential or job displacement due to property acquisition, neighborhood fragmentation, increase in noise levels and effects to other resources. The report concludes in the summary that impacts to environmental justice communities would result in no job loss, residential displacement, or neighborhood fragmentation – and that there would be no disproportionate impacts to environmental justice communities. Staff has reviewed that analysis and data in the report and has the following comments:

- St. Lucie County has the highest percentage of non-white population in the census tracts bisected by the project on the Treasure Coast. This is significant in that it is likely that these census tracts have a higher probability of being impacted by noise, vibration and other adverse impacts on residential areas created by additional train traffic. Moreover, unlike the environmental justice communities in Palm Beach, Broward and Dade counties, the communities in St. Lucie County receive none of the increased accessibility benefits of passenger rail.
- The rail bridge over Taylor Creek in St. Lucie County is so low that there is no potential for boat access to the Indian River Lagoon or Atlantic Ocean from homes and businesses. This makes development of the upstream portions of Taylor Creek envisioned in the 2007 Taylor Creek Charrette moot. The Taylor Creek Charrette was undertaken by the City of Fort Pierce along with the Treasure Coast Regional Planning Council to spur economic development in and adjacent to an environmental justice section of north Fort Pierce. A focus of the study was expanding marine industry opportunities by opening up Taylor Creek to boat traffic. The study indicated a key to implementing the project would be replacement of the FEC bridge across Taylor Creek. Details of the plan and recommendation are available at the following link:

http://www.tcrpc.org/departments/studio/fort_pierce_taylor_creek/charrette_report_taylor_creek_draft.pdf

Page 5-129-130 – Economic Conditions - Indirect and Secondary Impacts: The report concludes that because no land is being acquired to implement the project and there will be no loss of municipal tax revenue, commercial displacement, or loss of jobs, there is no economic impact. Further, the report goes on to state that the indirect and secondary benefits will be created by development activity around the stations in West

Palm Beach, Fort Lauderdale and Miami. Additional economic benefit of the project will be realized through cost savings associated with reduced highway maintenance and reduced congestion.

Staff has the following comments:

- That there is no impact identified in the DEIS belies the continued point that no real economic impact analysis was performed on how 32 new passenger trains and additional freight trains will have on congestion and frustrating access to the US 1 commercial corridor and downtown Fort Pierce, for example.
- Again, the only identifiable potential economic benefit will be to areas outside of St. Lucie County. Only the negative impacts will be experienced here. Also, on Page 5-4, the report indicates that the only “induced growth” would be at the Orlando Airport. This section appears to add the prospect of induced growth via Transit Oriented Development (TOD) around the stations in the southern communities.
- The last argument that additional benefit of reduced congestion and highway maintenance is self-serving at best and specious at worst. Where the congestion would be relieved is unlikely to be in areas of St. Lucie County. Rather, it is the position of staff that congestion in St. Lucie County is much more likely to increase because of so much additional train traffic adjacent to busy commercial and residential areas. Further, any cost savings for road maintenance is not going to accrue to any noticeable benefit to the tax payers of St. Lucie County.

Page 5-130 -134 – Public Health & Safety: The report states that the project would result in no negative impact to public health or safety. Rather, the project would enhance public safety with improvements to grade crossings signal equipment for vehicular and pedestrian safety. This section does not address the public health and safety concerns resulting from increased delays experienced at crossing for emergency services. All major medical facilities in St. Lucie County lie west of rail corridor.

Page 5-137 – 144 – Cultural and Archeological Resources:

Page 5-155 – Utilities – North-South Corridor: The report fails to include the Fort Pierce Utilities Authority (FPUA) as an electrical transmission/distribution provider along the corridor.

Page 5-158 – Cumulative Impacts: With respect to the broader subject of the social, environmental, economic and transportation impacts on St. Lucie County, the report largely glosses over the actual impacts of the dramatic increase in rail activity anticipated with new passenger service and increases of freight. Examples of the complete ignoring of potential future impacts on St. Lucie County are highlighted in the following statements:

- Page 5-165 – Cumulative Impacts of the Project – Transportation: This section states that the only adverse impacts would be temporary delays during construction and the benefits would be regional improvements to the transportation system for the communities along the east coast. This completely overlooks St. Lucie County which will receive no such benefits and only the impacts.
- Page 5-166 – Cumulative Noise Impacts: This section basically states that noise and vibration impacts will be temporary during construction. Long-term impacts from noise and vibration would not cumulatively increase when considered with the project.

Page 7-3 – Table 7.2-2 Project Mitigation Measures for Unavoidable Impacts – Operational Period: This segment summarizes the proposed mitigation for impacts created by the project. The lack of mitigation measures for nearly all of the impacts staff has identified above underscores the lack of substantive analysis conducted in the DEIS. Moreover, it supports staff's opinion that the findings of the study were pre-ordained and the analysis that was conducted was tailored to produce the desired outcome. There is no true analysis of impacts so there is no proposed mitigation for: traffic congestion, economic impacts to small businesses, environmental impacts to preserve areas and endangered species, reduced access to residential neighborhoods already impacted by the current level of rail activity, environmental justice, archeological and cultural resources and public safety.

Code Regulation Division – Planning & Development Services

The Draft EIS states the project will result in long-term noise and vibration adverse impact to residents and properties along the N-S Corridor. However, in staff's view, the report does not provide sufficient detail regarding mitigation of such impacts.

- The report states that vibration levels from the passenger rail may damage fragile structures but does not catalogue the historic establish baseline data on structures and evaluate how the vibration levels may impact or damage fragile structures and provide the necessary mitigation of such adverse impacts. (Pg. 5-44)
- The Draft EIS does not sufficiently detail abatement measures to be taken during construction (Pg. 5-45) The construction noise impact does not include the impact and duration of the noise exposure by type of construction equipment.
- The Draft EIS Report does not sufficiently identify specific land uses in St. Lucie County along the mainline such as schools, theatres, outdoor recreation/preservation areas, golf courses and neighborhoods, that will be most affected by the dramatic increase in heavy rail activity (Pg. 5-44). The Draft EIS states the North – South Corridor has the greatest potential for vibration impacts

and only very generally discusses land uses and buildings, such as concert halls, TV studios, recording studios, auditoriums and theaters that may be impacted by ground borne vibration and noise. Special buildings and historic buildings for each municipality should be mapped, analyzed and recommendations of mitigation provided to lessen adverse impacts. (Pg. 5-44)

- The DEIS states that AAF will pole-mounted wayside horns at all intersections to reduce noise impacts from locomotive horns. However, the specific locations where severe impacts may occur have not been provided or the documentation to justify not using a wayside horn at some intersections. (Pg. 5-39). There are no details as to the tones or frequencies of a wayside horn.
- The Draft EIS stated AAF is working with local communities to create quiet zones as an alternative noise abatement measure to wayside horns and locomotive horns - but there has been a lack of coordination by the AAF within the Treasure Coast area. Further studies are necessary to determine locations of quiet zones to include costs of construction, available funding and input from other jurisdictions. A regional approach on this project with either the TPO or the TCRPC as the lead entity would be highly beneficial with respect to mitigation issues such as noise and quiet zones.
- Concerns of wildlife area, pristine open space and environmentally sensitive lands should be mapped, analyzed and adverse noise impacts explained. Noise impacts can result in adverse impacts to wild and domesticated animals, including various species of livestock and poultry which have not been addressed by the Draft EIS as it relates to the North - South Corridor. Noise exposure limitations shall be provided for each animal category and necessary mitigation improvements.

Public Works and Engineering

The All Aboard Florida project raises concerns as to cost, safety, noise and traffic delays at crossings:

- St. Lucie Village is bisected by the FEC right-of-way and rail line, with residential development on both sides of the tracks. The homes are very close to the tracks and will undoubtedly experience additional noise impacts.
- There are six crossings in the 2.5-mile length of St Lucie Village, four of which offer the only means of access to the neighborhoods they serve. Four crossings are dead end streets that do not connect with adjacent crossings. If these crossings are blocked, there is no other means of ingress and egress.
- The grade crossing plans show a third “center siding” track through almost the entire length of the Village, where the freight trains will be diverted to allow the faster passenger trains to pass by.
- The Fort Pierce switching yard south of Citrus Avenue Overpass appears to have the capability to store multiple trains on parallel tracks. Could the switching yard serve as an alternative to eliminate the need for the “center siding” track through St. Lucie Village?
- The requirements for sounding horns or other warning signals will greatly increase the noise levels throughout the Village. St. Lucie Village has been told they would be responsible to upgrade crossings as required to establish “quiet zones”. Specific costs for crossing improvements have not been received but estimates for similar improvements are well beyond the financial means of St. Lucie Village.
- The County, City of Fort Pierce and St. Lucie Village pay for periodic maintenance of railroad crossings. Staff is very concerned that future crossing maintenance costs will increase significantly. Railroad crossing maintenance is already one of the largest single items in the St. Lucie Village annual budget.
- We are very concerned about safety along the railroad corridor and who will be responsible for paying for safety features such as quad gates at crossings and pedestrian access points.
- There are concerns about traffic delays at all railroad crossings. The frequency of traffic delays could increase significantly with the anticipated increased freight traffic associated with the widening of the Panama Canal and increased Port activity. Could the Fort Pierce switching yard serve to alleviate some of the delays associated with freight trains and/or during business hours? The switching yard does not impact crossings and appears to have adequate space for storage and stacking of freight trains.
- Many of the railroad crossings in St. Lucie County do not have adequate space to provide median dividers at the approaches. The installation of quad gates seems to be the logical solution to provide for safety. However, there are concerns about who will pay for the additional gates and safety improvements.
- There are concerns about drainage impacts from raising the height of the approach roads at crossing locations.

- How will the bridge crossings be handled? Will additional tracks be placed on the existing bridges?
- Can Taylor Creek Bridge be raised higher to provide for water (boat) traffic underneath?
- Will the railroad bridge at Avenue "C" be replaced to accommodate two tracks? The existing bridge does not appear to be wide enough to fit two (2) parallel tracks. Will AAF perform work outside of the railroad right-of-way, to address drainage impacts resulting from raising the approach roadways at crossing locations? Will annual lease fees to Cities and Counties be increased as a result of the new improvements at railroad crossings?
- Some of the railroad crossings are privately maintained. These private crossings are critical for providing access. However, there is concern about who would pay for improvements to the privately maintained crossings.
- If Intersection signal improvements are needed for roadways located immediately adjacent to the railroad crossings (outside of RR right-of-way) will AAF help to pay for these costs?
- Pp S-8 and S-9 detail the methodology for studying the transportation effect on local roadway networks. Using the two largest arterials, by volume, for any County may not sufficiently capture the effect on roadways that will be impacted by the additional train crossing wait times.
- Page S-2 states stormwater ditches will be modified along the corridor, but in many locations, there are no existing stormwater ditches and the proposed improvements may preclude the ability to place any stormwater treatment areas in FECR right of way.
- It is noted that St. Lucie County employment data is absent from Table 2.3-4 on page 2-8.
- Although specific information is not provided, it is noted that many of the purported hardships indicated as eliminating factors for utilizing the CSX route (sharing common resources between freight and passenger, operational agreements, etc.) are still required along the FECR route (pp 3-4 and 3-5).
- St. Lucie County was provided 30% plans showing 3 tracks from south of St. Lucie Lane north to the Indian River County line. Page 3-35 does not indicate this location of proposed third tracks along the corridor.
- It is indicated that the two bridges in St. Lucie County (Moore's Creek and Taylor Creek) will be either retained or rehabilitated. St. Lucie County has concerns that AAF is missing the opportunity to replace and upgrade the Taylor Creek Bridge. This bridge has a very low clearance over the water and is the primary obstruction to navigation for points upstream of the bridge.
- The ridership estimate methodology contained in the DEIS would require additional analysis beyond the expertise of staff at this time, but appears questionable given the current Amtrak ridership values presented.
- The land use for St. Lucie County is described as low density residential and undeveloped lands. It must be noted that the FECR corridor runs directly thru downtown City of Fort Pierce, which has significant commercial, industrial and

much more intensive uses than “low density residential”. Significant negative effects would be borne upon these uses by the additional rail trips.

- Discrepancies in the listed number of at-grade crossings are found throughout the report. As an example, Table 4.1.2-3 lists 21 crossings for St. Lucie County, while Table 4.4.4-1 lists 27, and Table 5.1.2-4 lists 20.
- Discrepancies in the average freight train speed thru the County were found throughout the report. Table 4.1.2-4 has lower average speeds than the data presented in Table 3.3-9. Furthermore, the listed source for Table 4.1.2-4 data does not exist within this report. Utilizing these lower numbers artificially inflates the existing time of closure at any given crossing within the County.
- The DEIS assumes in section 5.1.2 that there will be “no significant impact to transportation as a result of this project”. The section goes on to further state “no significant adverse impacts would occur if the future LOS is D or better, and if the LOS below “D” does not deteriorate”. By the report’s own definition, the reduction in levels of service at both at-grade crossings studied for St. Lucie County will result in significant adverse impacts.
- Many of the at-grade crossings are the sole access point to neighborhoods, and will create a life safety concern with the additional times of closure.
- The Average Annual Daily Traffic (AADT) utilized for the evaluation is dated and far lower than current traffic counts. It is of note that the two greatest impacted roadways in St. Lucie County (Seaway Drive and North Causeway) are hurricane evacuation corridors and the primary routes to Lawnwood Regional Hospital for the residents of North and South Hutchinson Island. Seaway Drive currently operates at a level of service (LOS) D and North Causeway currently operates at LOS B.
- The analysis studied for 3 train crossings per hour is not the not indicative of the likely worst-case scenario, as indicated on page 5-7. Further analysis should be performed for the most restrictive case to determine actual impacts.
- It is noted that of the entire North-South Corridor, both intersections in St. Lucie County will suffer the greatest increases in delay time with no direct benefit to the community.
- The FDOT has programmed the north causeway bridge for replacement in 2019. How will the increase of the tracks along the corridor be integrated into the bridge improvements?
- The addition of two tracks along Seaway Drive and North A1A would not permit sufficient room for a large vehicle to stage between the traffic signal and the tracks, thereby increasing the probability of an accident. How will this be mitigated?
- On average, more than 400 fatalities per year occur as a result of pedestrian and train interaction. In a location such as St. Lucie County, with a greater distribution of elderly and low-income population, what steps will be taken to counteract the potential interaction?
- The tabulated substantial, negative fiscal impacts to the local maritime industry contained in the DEIS would require additional analysis beyond the expertise of staff.

- The DEIS states that there will be no adverse impacts to public health and safety. The statement does not appear plausible for the areas such as the Treasure Coast that will receive no direct benefit from the added train trips thru and across local roads.
- Upgrades to road crossings to create sealed corridors will require additional maintenance costs, diverting funds from competing roadway and other maintenance liabilities.
- The statement that the project would “benefit elderly and handicapped individuals by providing a transportation option that will enhance mobility and livability in their communities” should be qualified, as St. Lucie and Martin Counties have the greatest percentage of elderly residents, and will not be served by the project.

Water Quality Division – Public Works

- Ch. 1: 1.2.3. Second track roadbed clarification/detail. What physical construction improvements to land will be completed to build the second track? Is this an increase in impervious surface over existing conditions?
- 1.4. There is no mention or description of the Multi-Sector Generic Permit for Stormwater Discharges Associated with Industrial Activity for the VMF issued by DEP (NPDES Stormwater permit.)
- Ch. 2: Table 2.3-4 is missing SLC census data.
- 2.3.5. Pursuant to the 2025 Florida Transportation Plan, the Florida Rail Project Plan (2009 referred) is to be updated every two years. Is a more current plan available? Is there a more current Investment Element of the plan (after 2010?)
- Ch. 4: 4.1.3.1. How was the month of January determined to be the “peak season for vessel traffic?” It is generally believed the summer months will yield the highest vessel counts and therefore should be used for calculations.
- 4.3. Effects to Savannas State Preserve? No mention of this State Park in the Affected environment.
- Table 4.3.5-4. ‘Counties’ column is incorrect (St. Lucie is not shown) so that water bodies are erroneously listed in the wrong counties. Moore’s Creek is in St. Lucie County and Warner and Unnamed Creeks are in Martin County – not Indian River. Also, Taylor Creek is missing (in St. Lucie County.)
- Table 4.3.4-2 has an error in that St. Sebastian River is in Brevard County.

Emergency Management & Solid Waste Departments

Most of the draft EIS is based on the FRA Environmental Assessment (EA) for Phase I (West Palm Beach to Miami) completed in 2012. St. Lucie is included in broad terms as part of the North – South corridor but potential impacts to St. Lucie County were not specifically studied. The 2012 EA concluded there were no Findings of Significant Impact (FONSI). There will be no EA done for phase 2.

Below are the sections and response from Public Safety:

Pages 4-47 – 4-51 - Hazardous Materials and Solid Waste Disposal: AAF is planned for passenger rail service not transport of large quantities of hazardous materials such as ammonia. The proposed Siemens Charger Diesel-Electric locomotive will have a diesel fuel capacity between 1,800 – 2,200 gallons. Current Florida East Coast GE locomotives have a significantly larger diesel fuel capacity at 5,000 gallons.

The possibility of a wider spread of diesel fuel due to a high speed crash with a fuel tank rupture could create a larger contaminated area resulting in a longer clean-up operation. Other additional concerns regarding hazardous materials due to AAF's proposed passenger service through St. Lucie County are not anticipated.

Pages 4-115 – 4- 127 - Public Health & Safety: The DEIS indicated that no accidents occurred at any at-grade crossings in St. Lucie County between 2008 and 2012. The addition of 32 trains per day at much higher speeds than FEC trains will likely create more opportunity for at-grade crossing accidents. It is recommended that all efforts be made to have AAF upgrade or improve all crossings. The proposed project will only benefit AAF and do nothing to lower the chance of accidents. No analysis was performed on the potential increase in accidents from additional trains moving at much greater speeds through heavily developed areas of the County. Passenger train derailments often result in Mass Casualty Incidents (MCI). A high speed derailment in any populated area of the County, especially downtown Fort Pierce would likely result in a large number of casualties.

Pages 5-58 - 5-62 - Hazardous Materials: See response to Chapter 4 viii

Environmental Resources Department

- It would be beneficial to request Environmental Resource Permits (ERP)/ACOE permit applications by County to clearly separate impacts to SLC and which mitigative measures presented in the plan would be implemented in SLC. This method would allow clear designation of agency oversight such as USFWS Jacksonville and USFWS Vero jurisdictions.
- It is unclear if listed species surveys or any ground reconnaissance occurred in SLC.

Air Quality

- St. Lucie County is identified in the DEIS as an attainment area for all criteria pollutants (i.e.; measured pollutants within the National Ambient Air Quality Standards for Ozone, Carbon Monoxide, Nitrogen Dioxide, Sulfur Dioxide, Particulate Matter, Airborne Lead, & Greenhouse Gases).
- The primary type of emissions contributing to air pollution in the Project Study Area is mobile source emissions from combustion engines such as automobiles. Table 4.2.1-3 shows existing mobile source emissions for 2008, the most recent year available.
- The report states that the air quality in the region would improve through the reduction of vehicles miles travelled as auto passengers are diverted to the new rail system.
- While the data provided do not appear negative, ERD is not fully qualified to review the air quality data presented nor evaluate the impacts that will result from this project. However, since there will not be a station in St. Lucie County to contribute to a decreased air pollution, there could be a substantial increase in the amount of exhaust fumes created by cars idling at crossings an additional 32 times per day.

Noise & Vibration (there appears to be no reference to impacts on the Savannahs)

- Noise and vibrations from this project should be considered in relation various factors such as disruption to foraging and nesting habits of listed species.
- Vibrations to radiate out a projected 600'. Gopher tortoise burrows within this distance may be compromised as a result of the vibrations.
- Noise will negatively impact the enjoyment of the County's Natural Areas.

- Noise and vibrations may impact the enjoyment and integrity of the 30 foot tall observation tower currently under construction at the Walton Scrub Preserve, located very near the railroad right-of-way for optimum viewing of the Savannas landscape and the Indian River Lagoon.

Climate Change - Water Resources

- The DEIS states the project may impact waters of the United States within the jurisdiction of the United States Army Corps of Engineers (USACE) under its authority granted by the Clean Water Act. USACE provide special expertise with respect to environmental issues concerning the potential discharge of dredged or fill materials into waters of the United States or the construction of any structure over navigable waters of the United States. USACE will also provide FRA with all EIS documentation requirements that are unique to its Regulatory Program outlined in 33 CFR part 325 Appendix B (i.e., which would not be addressed by FRA in FRA's implementation of its NEPA requirements). An example of a requirement that is unique to the USACE Regulatory Program and may be applicable to the USACE's participation as a cooperating agency is the identification and analysis of the Least Environmentally Damaging Practicable Alternative (LEDPA) and Public Interest Review as a requirement for compliance with the Section 404 permit program. USACE will complete its own Record of Decision including a Clean Water Act [] Section 404(b)(1) determination, public interest evaluation, R&HA Section 10, and engineering analysis to determine whether to issue authorization pursuant to R&HA Section 14 (33 USC 408) permit applications. According to the report, AAF has not yet submitted its application for Section 404 authorization to the USACOE and USACOE analysis and review will be part of a record of decision following publication of the Final EIS.
- BMP's and mitigation measures during construction will include sediment control via turbidity curtains and silt fences and development and implementation an rosion and Sedimentation Control Plan in EFH.

Essential Fish Habitat

- Project will require USACOE CWA Section 404 Permit/ Rivers and Harbors Act Section 10 and Section 14 Permit U.S. Fish and Wildlife Service Endangered Species Act as well as Section 7 concurrence National Marine Fisheries Service Endangered Species Act Section 7 concurrence/ Magnuson-Stevens Fishery Conservation and Management Act – Essential Fish Habitat.

- NMFS commented early in the review process that they want AAF to approach in a stepwise process: Step 1- identify if there are salinity control structures downstream of any of the bridges- if there are we can eliminate those from consultation for Essential Fish Habitat; Step 2- identify the habitat at the bridges- mangroves, seagrasses, naturally occurring oyster habitat will require mitigation; Step 3- narrow list of fish down based on the habitat present at our sites and address them in the EFH (EFH vs. ESA- Essential fish habitat assessment is for marine fish and impacts will need to be addressed in the EFH, but mitigation is not required. Endangered Species Act Biological Assessment will be required for smalltooth sawfish and Johnson's Seagrass if determined to likely be impacted- The trigger for consultation for small tooth sawfish is impacts to red mangroves- the amount of impacts will trigger the formal consultation- however, by adhering the smalltoothed sawfish construction conditions impacts may be minimized). EFH consultation with NOAA is required if there are impacts to Johnson's Seagrass. Mitigation options for seagrass are limited. The survey period for seagrass ends September 30- to confirm presence/absence.
- Project will require Florida Department of Environmental Protection Clean Water Act Section 401 Water Quality Certification - Environmental Resource Permit; Sovereign Submerged Lands Approval for bridges/ Coastal Zone Management Act.
- The St. Lucie County portion of the WPB-Cocoa corridor crosses two surface waters. Table 4.3.1-2 identifies them as "North Coastal (St. Lucie/Loxahatchee)" and "Moore Creek" and identifies both as impaired.

Drinking Water – Ground Water

- The Florida Safe Drinking Water Act (Fla. Stat. §§ 403.850 – 403.8911) ensures that the existing and potential drinking water resources of the state remain free from harmful quantities of contaminants. Local officials of each county have been encouraged to handle pollution problems within their jurisdiction on a cooperative basis with the state. St. Lucie County has a wellfield protection ordinance. The report states there are no sole source aquifers in SLC. There are three hydrostratigraphic units in SLC including the surficial aquifer system, intermediate confining unit, and the Floridan aquifer system.

Wetlands

- For the purposes of the EIS preliminary jurisdictional determinations will treat all waters and wetlands, which would be affected in any way by the proposed activity as if they are jurisdictional waters of the United States.
- ERD has a concern that there is a potential for construction to interrupt the natural water seepage flowing from the Atlantic Coastal Ridge to several of our Natural Areas including D.J. Wilcox and Harbor Branch. These flows maintain hydroperiods of wetlands within those preserves.

Floodplains

- Portions of the Project Study Area of the N-S corridor (472 acres) are within the 100-Year Floodplain. No details are provided for St. Lucie County. On Page 4.3.4-2 it is not possible to analyze St. Lucie County section of map.
- Table 4.3.4-2 inaccurately shows the St. Sebastian River floodway crossing in St. Lucie County.
- DEIS identifies Taylor Creek as a Federal Flood Control Project.

Biological Resources and Natural Ecological Systems

- The existing tracks already cause habitat fragmentation and wildlife movement.
- Creative solutions such as wildlife under- and overpasses and fences should be implemented as part of this project.
- SLC has the following preserves/wildlife corridors: Harbor Branch Preserve (SLCERD), Indrio Scrub Preserve (SLCERD), D.J. Wilcox Preserve (SLCERD), St. Lucie Village Heritage Preserve (SLCERD), Walton Scrub (SLCERD), Savannas Recreation Area (SLCP&R), Savannas Preserve State Park (FDEP), as well as Heathcote Preserve/Indian Hills Linear Park (SLC/FP).
- The report states EFH and Habitat Areas of Particular Concern (HAPC) are located within the N-S portion of the study area.
- Page 4-89. Table 4.3.5-4 should include areas within St. Lucie County (Taylor Creek, Moore's Creek). Is the Moore's Creek shown under Indian River County, the Moore's Creek in St. Lucie County?
- The report states that desktop surveys identified 38 plant and animal species that are both federally and state listed and 36 listed only by the State. The eight Natural Areas in SLC affected by the project potentially support listed species. It would be beneficial to break up the ERP/ACOE permit application by County to clearly separate issues such as jurisdictions, impacts, mitigation efforts. Secondary and cumulative impacts to wildlife including noise, vibration, habitat

fragmentation, etc. must be thoroughly addressed in the biological assessment. USFWS suggests clearly outlining avoidance and minimization first, then mitigation for impacts to wildlife.

- Page 4-99. Table 4.3.6-3 should include Savannas Mint, *Dicerandra immaculata* var. *savannarum*.
- Florida Scrub-Jays - Were scrub-jay surveys conducted in the SLC portion of the AAF project right-of-way within the areas of suitable scrub-jay habitat during the designated survey season for this species during early spring (especially March). Will USFWS require a permit and best management practices for this species? The project is likely to result in increased risk of scrub jay strikes with the frequency and speed of the train. Adding the new rail will move the trains closer to the adjacent scrub habitat. The project should consider high fencing around the tracks to prevent scrub-jays from colliding with the trains however, this may impede movement of other species. So there should be space at the base of the fence to facilitate movement of species such as gopher tortoises.
- Eastern Indigo Snake - Will USFWS require Standard Protection Measures for the Eastern Indigo Snake including information signs to be placed in areas of Eastern indigo snake habitat along the AAF project right-of-way during times of construction. These signs are to serve as an educational tool to make construction workers aware of the snake's appearance and potential presence within the area. If snakes are observed, these signs instruct workers to, cease work and contact the environmental consultant and the USFWS office. Any dead snake that is discovered must be put on ice and again contact the USFWS.
- Wood stork – There are reportedly no wood stork rookeries located within the AAF project right-of-way. Project footprint is within 2,500 ft. of known colony. Unavoidable impacts to wetlands will be mitigated through purchase of credits at a USFWS approved mitigation bank. Will there be impacts to suitable foraging habitat? If so, will these impacts be mitigated?
- West Indian Manatee - Will all in-water work be conducted in accordance with standard manatee conditions?
- Gopher Tortoise (Candidate Species) - Species may be federally listed in the near future. FWC compliant survey and relocation will be conducted prior to construction. The project may require Florida Fish and Wildlife Conservation Commission Gopher Tortoise Permit. Page 7-13, Paragraph 7.2.11.7. Note: Impacts within 25 feet of a gopher tortoise burrow (even if off-site) may also require relocation.
- Audubon's Crested Caracara - Were land use and aerial photograph evaluations of habitat conducted? Is there nesting activity along the corridor?

- Bald Eagle – The report states that bald eagle was observed during field surveys, along with suitable nesting habitat. Where? Are any known bald eagle *nest* located near the project?
- Will USFWS require manatee construction conditions, small tooth sawfish construction condition, indigo snake construction conditions, and sea turtle construction conditions (for work areas where these species may occur)? By adhering to these conditions does the USFWS assume not likely to affect? Exactly where in the Project Study Area will these measures be required?
- BMP's and mitigation measures during construction will include: siltation/turbidity barriers made of material that would not entrap/entangle species, and would not impede species movement, water vessels would operate at no wake/idle speeds at all times and in water depths where the draft of the vessel provides less than a 4-foot clearance from the sediment, vessels would follow routes of deep water, personnel would be instructed in the potential presence of threatened and endangered species in the vicinity, personnel would be advised of the civil and criminal penalties for harming species, if a manatee comes within 50 feet of the construction area or barrier, activities would cease, including vessels being shutdown, until the animal has moved on its own volition beyond the 50-foot radius of the construction operation, signs regarding species would be posted before and during in-water construction activities, feeding sites shall not be subjected to water management practices, construction would comply with the Bald Eagle Management Plan, a Bald Eagle Disturbance Permit will be obtained, eastern indigo snake monitoring report would be submitted to the appropriate federal and local field offices, construction activities would occur during daylight hours in areas that might be visible from any sea turtle nesting beaches, construction completed from the water would utilize floating barges and turbidity barriers, use bubble curtains during pile driving, and prior to ground disturbing activities, Florida Fish and Wildlife Conservation Commission- compliant gopher tortoise surveys shall be completed by a qualified gopher tortoise agent.

Cultural Resources

- Page 4-132. Table 4.4.5-14 should include Ft. Pierce "fort site" and mound (8SL3). Artifacts have been reported immediately west of the tracks, and it is presumed that a large mound system existed prior to construction of the railroad. Any construction activities may unearth archaeological resources.
- Page 5-140. Include discussion of Ft. Pierce "fort site" and the proposed impacts to the existing site as well as potential artifacts within the boundaries of the project immediately adjacent to 8SL3.

Recreation and other Section 4(f) Resources

- Section 4(f) resources are identified as parks, recreation areas, or wildlife and waterfowl refuges of national, state, or local significance that are available to the public. A park or recreation area is afforded federal protection under Section 4(f) if:
 - It is publicly owned, meaning the property is owned and operated by a public entity, or the public entity has a proprietary interest in the property, such as an easement;
 - It is open to the public for visitation for more than a select group of the public at any time during normal hours of operation;
 - The primary purpose of the property is recreation (lands used primarily for non-recreational purposes but that host recreational activities do not have recreation as a primary purpose); and
 - It is significant as a park or recreation area, meaning that the resource plays an important role in meeting the park and recreational objectives of the community, as determined by the official with jurisdiction over the property.
- SLC has the following preserves that should qualify as a 4(f) resource: Harbor Branch Preserve (SLCERD), Indrio Scrub Preserve (SLCERD), D.J. Wilcox Preserve (SLCERD), St. Lucie Village Heritage Preserve (SLCERD), Central Open Space (SLV), Old Fort Historic Site (FP), Walton Scrub (SLCERD), Savannas Recreation Area (SLCP&R), Savannas Preserve State Park (FDEP), as well as Heathcote Preserve/Indian Hills Linear Park (SLC/FP).
- None of SLC's parks or other recreational facilities have been subject of LWCF Act grants, therefore would not be protected under Section 6 (f)(3).

Visual and Scenic Resources

- The proposed project will have a visual impact on all of the natural areas it will pass through.
- Most notable is impacts to the 30 foot tall observation tower currently under construction at the Walton Scrub Preserve, located very near the railroad right-of-way for optimum viewing of the Savannas landscape and the Indian River Lagoon.

Natural Environment – p. 5-75 – 5-121

- The DEIS report states, “the project has the potential to adversely affect land use, transportation (particularly traffic at-grade crossings), noise and vibration, water resources, wetlands and floodplains, biological communities, and protected species.” We agree with this statement. However, the report does not address the necessary mitigation measures required to reduce the potential adverse effects.
- Water quality and quantity concerns associated with reconstructing the railbed to add a second track will be addressed as part of the FERP process.
- The report states BMP’s will be implemented but it does not identify which BMP’s or where they will be implemented.
- The report states negligible impacts to water quality will occur but it does not elaborate as to where or what those impacts are or what qualifies as negligible.
- The report states the project will pass through several wellfield protection zones through several counties including SLC. It states the project will comply with local ordinance for protection. What will trigger our involvement?
- The project will result in impacts to the aquatic environment. The report discusses numerous direct and indirect impacts. What will specifically occur in SLC?
- Habitat Fragmentation – During the November 2013 AAF meeting at the Fenn Center with environmental lands managers (County, State, etc.), there was concern about extra RR tracks that would only strengthen the fragmentation occurring to gopher tortoises as well as increase mortality rates. Gopher tortoises sometimes become trapped in between the tracks. Can small platforms be installed every 100’ that would allow gopher tortoises to escape from between the tracks? A consulting engineer for AAF seemed interested in coming up with a solution. The area between the City of Fort Pierce to the Savannas Preserve SP and JDSP were mentioned. There is some mention given to gopher tortoises on p. 5-115, paragraph 2. (DA)

Mitigation Measures and Project Commitments

In summary, there is insufficient information provided for staff to complete a comprehensive review of this project. Staff would request copies of field surveys conducted in St. Lucie County and recommends the Environmental Resource Permits (ERP)/ACOE permit applications for the project be separated out by County. This method would allow staff to clearly distinguish impacts, BMP measures and mitigation specifically relevant to SLC.

St. Lucie Village

It is noted that on PDF page 134 (4-3) the discussion of existing land uses references incorporated municipalities that AAF goes through, but doesn't reference St. Lucie Village. Moreover, it needs to be emphasized that there is no exit other than these crossings in many St. Lucie Village neighborhoods.

Similarly, Table 4.1.1-1 (pg. 135, 4-4) lists land use plans of various counties and municipalities, but not the Village.

At page 234 (4-103), includes another reference to passing through numerous incorporated municipalities - - not including St. Lucie Village.

On page 256 (4-125) local government contacts are listed concerning locally designated cultural resources, however there is no contact for St. Lucie Village.

Page 263 (4-132) does designate Fort Capron as a historic resource in Table 4.4.5-14.

Page 272 (4-141) does include St. Lucie Village Heritage Park in Table 4.4.6-2.

Regarding the triple track, it is noted in Appendix 3.3-B-4, and that the trains turn onto and off of the center siding at sharp angles, implying a stopped or nearly stopped train.

Fort Pierce Police Department

Fort Pierce has some grave concerns about accidents at any of the downtown crossings: Seaway Drive, Citrus Avenue, Avenue A & C, Orange Avenue, not to mention North Causeway, Savannah Road, and Midway. Any accident at these locations would certainly a devastating impact on downtown (life, property and economic) for an extended period of time.

St. Lucie County Fire District

Please see the attached resolution by the district opposing the project.

Cc: Howard N. Tipton, County Administrator
Dan McIntyre, County Attorney
Robert Bentkofsky, Assistant County Administrator
Don West, Public Works Director



ST. LUCIE COUNTY FIRE DISTRICT

RESOLUTION NO. 578-14

WHEREAS, the St. Lucie County Fire District ("Fire District") is mandated to provide fire prevention, fire suppression, emergency medical services, rescue and other responsibilities throughout St. Lucie County, Florida, pursuant to the provisions of Chapter 2004-407, Laws of Florida; and

WHEREAS, the Fire District is cognizant of the efforts of All Aboard Florida ("AAF"), a wholly-owned subsidiary of Florida East Coast Industries, LLC, to construct a high-speed rail system from Orlando to Miami, traveling along the East Coast of Florida, which will involve an estimated 35 additional passenger trains per day traversing St. Lucie County, without the location of any Treasure Coast stations; and

WHEREAS, there are approximately 29 railroad crossings located in St. Lucie County; and

WHEREAS, the Fire District responded to 43,458 emergency calls and 81,876 total unit responses during the past year, which involved thousands of Fire District vehicles traveling across railroad crossings; and

WHEREAS, Federal Railroad Administration officials, who want to hold AAF to a "sealed corridor" level of safety guidelines, contend that AAF may not be exercising appropriate safety practices when designing for high speed passenger rail service and is aiming for a lower level of safety standards; and

WHEREAS, AAF will necessarily cause increased delays and obstructions to motor vehicular traffic throughout St. Lucie County and negatively impact the ability of the Fire District to promptly respond to emergency calls; and

WHEREAS, this adverse impact upon the Fire District's unfettered response to emergency calls will reduce the Fire District's continued ability to provide quality service to the citizens, residents of, and visitors to St. Lucie County, which will constitute a genuine threat to the public health, safety and welfare; and

WHEREAS, when AAF unduly delays the Fire District responding to even one emergency call, it will be one time too many; and

WHEREAS, AAF poses a threat to the economic well-being of the St. Lucie County community, which will adversely affect the continued viability of the Fire District, without any economic benefits in return.

NOW, THEREFORE, BE IT RESOLVED that the St. Lucie County Fire District Board of Commissioners hereby unanimously opposes the All Aboard Florida project, as currently contemplated.

DULY PASSED AND ADOPTED by the Board of Commissioners of the St. Lucie County Fire District this 21st day of May, 2014.

ATTEST:

ST. LUCIE COUNTY FIRE DISTRICT

By: _____
Karen Russell, Clerk/Treasurer

Shannon Martin, Chair



HISTORIC PRESERVATION BOARD

December 1, 2014

Honorable Mayor Hudson & City Commission
100 N US Highway 1
Fort Pierce, FL 34950

RE: All Aboard Florida

Dear Honorable Mayor and Commissioners,

The Historic Preservation Board is responsible for the effective and efficient preservation and promotion of the history of our community. This monumental role furthers the historic legacy of Fort Pierce, while striving to increase public awareness of the value of historic preservation, build a stronger community, and ensure the health, safety, and welfare of our citizens are protected. The embrace of our resources is encompassed through the review and actions taken on existing and prospective structures, sites, or various elements that contribute to our rich history.

The proposed All Aboard Florida (AAF) Project to connect Miami with Orlando via an approximately 240-mile route along the Florida East Coast Railway prevents significant concerns and threats to this mission, for a variety of reasons. The feasibility and environmental impact study from AAF was limited in scope, content, and understanding of local communities such as ours. The following information and detail is specific to the review of impacts and lack of provisions to protect our Historical & Cultural Resources.

Preservation of historical and cultural resources is important to the City of Fort Pierce. The City's restoration and preservation efforts have been and continue to be a top priority. Fort Pierce historic buildings were established as long ago as 1882, with our archaeological site at Old Fort Park dating back to the 600s. The typologies of historic buildings vary from wood frame, clay, concrete, and marble. Many of the oldest buildings are concentrated downtown and along the river and railroad. The impact of additional trains per day on these various historical is unknown, and quite difficult to quantify or qualify. Review of the Environmental Impact Statement (EIS) report found the FEC did not sufficiently research Fort Pierce historical and archeological sites.

The inexactitudes of the Federal Railroad Administration (FRA) report include, but are not limited to, the inaccuracy or insufficiency in identifying local resources, present insurmountable issues in the subsequent lack of analysis to assess and address the possible negative externalities that will negatively economically and physically impact our community. The substantial increase in train traffic will impact our historical, archeological, and culture resources, however the severity is currently unknown, due to a clear lack of research. Furthermore, FRA did not discuss any mitigation plans to protect historic and archeological sites.

Furthermore, the EIS report currently does not specify how additional vibration will affect homes and businesses located near the FEC railway. A more complete evaluation is essential to calculate the true consequence of vibration to our historic structures, since a majority of our historically significant properties were built between late 1900's to 1950. Commercial and residential buildings within three of our historic district line the tracks, including the City's most historic neighborhood, Edgartown, which hold structures located very close to the rail line. In some cases historic structures a mere ten feet from existing tracks, presenting concerns which are not assessed by FRA. The available report is insufficient in considering the negative impacts to these prominent areas, historically, socially, and economically. Concerns regarding vibration on these older buildings are a great focus of the Historic Preservation Board.

In addition to the outlined effects, the concern of "sealed corridors" which are proposed in this area is tremendous. A sealed corridor is proposed to be built in the downtown; however the use of a chain-link fence to achieve this feature, does not assimilate with the nature and presentation of our historic downtown, nor is it allowed in our design standards. A chain link fence would be a further hindrance to the City's redevelopment and historic preservation efforts. The presence of these barriers, coupled with the increased train trips will further impose a rift in our historic downtown, unraveling efforts to promote safe and efficient flow of vehicle and pedestrian traffic.

Impacts to traffic, walkability, and the goal of a cohesive Downtown are another key focus for the Board in reviewing the proposal. The report does not provide a valid impact analysis of the area's roadway system when trains cross multiple roadways, simultaneously. Multiple crossing closures will increase delays, and will intensify vehicle traffic on our smaller underutilized roads, which do not have the capacity for high volume traffic. The report does acknowledge an increase in trains which will cause additional closure events, however it does not provide further details to understand the impact of the closures, or offer mitigation strategies. Further analysis and review is necessary to review direct and indirect impacts to our Downtown and abutting neighborhoods to prevent adverse impacts to residences, businesses, and essential functions of first responders.

The concerns expressed are only a handful of issues and externalities impending upon the quality of life for the City of Fort Pierce, our Downtown, and vital historic resources. A more comprehensive review of the potential impacts and costs to our City, along with many others along the Treasure Coast is necessary prior to any further actions with this project. The clear lack of understanding presented by FRA, and the absence of their efforts to properly garner essential information surrounding this project and its impacts to local communities, prepares an easy position for our Board to powerfully oppose this initiative in its current location and form.

Sincerely,



Paul Sampson
Historic Preservation Board Chair



Loxahatchee River Railroad Bridge Boat Count Project

Project Summary

Introduction

The Jupiter Inlet District Board of Commissioners seeks to better understand the level of boating traffic at and around the Loxahatchee River Railroad Bridge. The impetus for this derives from a plan by All Aboard Florida – Operations LLC (AAF) to develop passenger rail traffic between south Florida and Orlando. Impacts from this project include a projected additional 32 trains (made up of both northbound and southbound trains) crossing the Loxahatchee River. These trips will result in additional bridge closings and subsequent impacts to navigation. The Loxahatchee River Railroad Bridge Boat Count Project (Project) seeks to accurately count the number of boats passing through the bridge during daylight hours. The project is also collecting ancillary data associated with bridge operations.

Equipment

The Project involves collecting and analyzing time lapse video of the Loxahatchee River Railroad Bridge draw span opening during daylight hours over a one year period. The centerpiece of the video system is a *Brinno TLC 200 TimeLapse HD Video Camera* (Figure 1). The relatively inexpensive camera is powered by 4 standard AA batteries and records data directly to removable SD format memory cards (32 GB max). Table 1 displays customized



Figure 1. Brinno TLC 200 TimeLapse HD Video Camera inside ATH110 Weather Resistant Housing

Table 1. Standard Camera Settings

Parameter	Setting
Capture Rate	20 seconds
AVI Frame Rate	5 fps
Band Filter	None
LED Display	On
Output Resolution	1280x720 pixels
Time & Date Set	On
Low Light	Off
Time Stamp	On
Image Quality	Best
Firmware	V 1.00.0 and V 1.02.3

settings applied throughout the Project after some minor experimentation early in the process. The capture rate defines how frequently the camera records a frame of video – in this case every 20

seconds. The capture rate was first estimated based on the camera positions and expected vessel speed through the field of view. Trial and error during the initial deployment confirmed that 20 seconds is the appropriate value. The camera automatically stitches sequential images together to produce an AVI

format video file. All data are stored on the 32 GB SD card. The combination of capture rate, 4 AA batteries, and 32 GB of storage yield an average deployment of approximately 32 days.

Each camera was protected by a double layer of weather resistant housing. The first layer involved placing the camera inside an *ATH110 Weather Resistant Housing* (Figure 1). Next, the Project team developed a custom housing made from standard 4" PVC fittings to provide additional protection from the elements and to facilitate mounting (Figure 2). The combined weather protection has provided excellent results to date.

At the suggestion of the JID board, the Project includes two camera per deployment. The cameras are installed on JID's channel marker #1 and #2 immediately west of the bridge location (Figure 3). Each PVC housing is secured to the channel marker piles via two hose camps (Figure 4). The external housings have been painted to blend with the piles in an effort to deter vandalism.



Figure 2. Custom 4" PVC housing

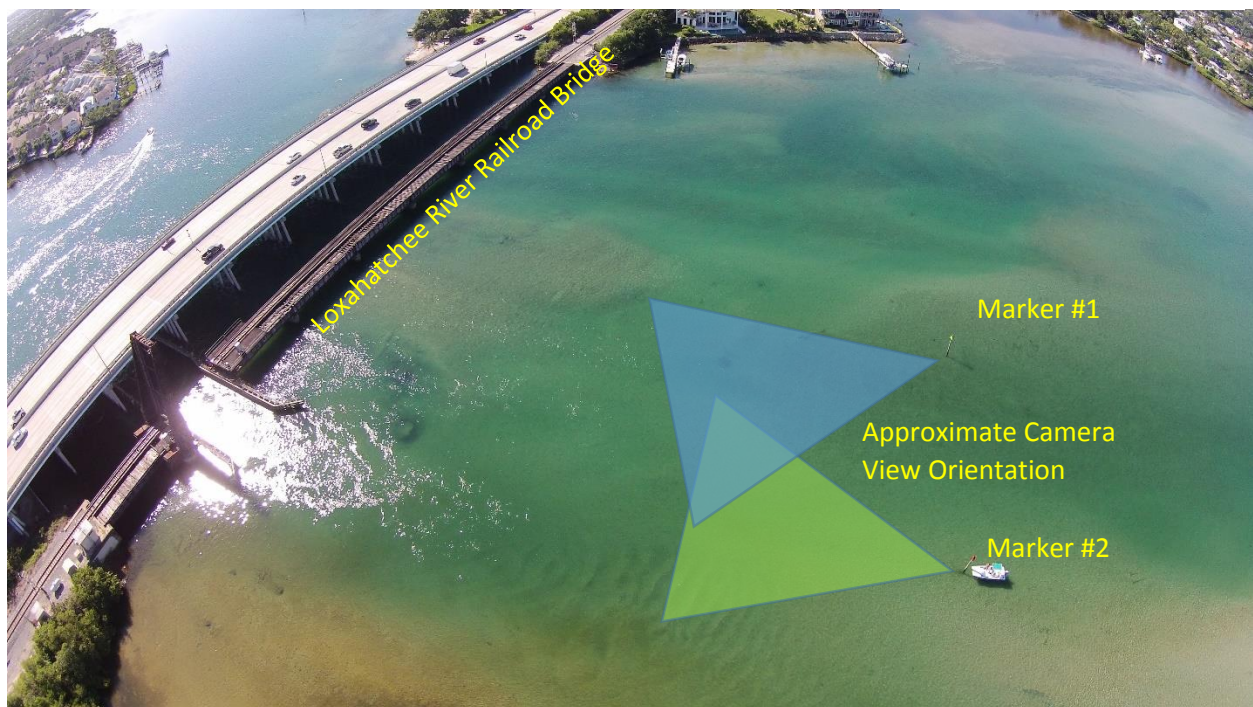


Figure 3. Camera positions relative to bridge

Maintenance

On average every 28 to 32 days, a Project field team services the cameras. Arriving by boat, the field team first secures the boat to the pile, loosens the top hose camp, and moves the PVC housing to the boat. There they remove the camera from the two housings, install 4 fresh AA batteries, and swap

out the SD memory card with a newly formatted blank card. They confirm that the camera operated correctly by checking that the SD card contains recorded data. The field team recalibrates the camera's internal date and time, examines the camera's lens and internal housing for any signs of clouding (treating with Rain-X when warranted), and begins recording video. They replace the camera in the housings and return the housing to the channel marker pile ensuring the correct field of view is maintained. The same procedure then occurs at the second camera. Finally, before leaving the scene, the field crew runs the boat through a slow back and forth pattern within the cameras' field of view. This portion of the video provides a reference for video processors since the dimensions of the field crew's boat are known.

Video Processing

With the SD memory cards in hand, a quick quality control procedure occurs. The check involves opening each file to identify the timestamp associated with the first frame of the video. The file is subsequently renamed to help identify the location and time period associated with the data. An example of the filename convention is:

“MM_YYYY-MM-DD_HHMMSS.AVI”

where MM stands for the channel marker holding the camera (M1 or M2), YYYY-MM-DD is the year, month, and day associated with the first frame of the video (e.g., 2014-06-08), and HHMMSS is the time stamp of the first frame (e.g., 062152 → 06 = hour (24 hr clock), 21 = minutes, and 52 = seconds).

Video processing results in vessel data entry into a spreadsheet. Reviewers proceed frame-by-frame through the videos and record an entry for each boat observed. Jet skis, kayaks, and paddleboards, as well as boats not passing through the draw span of the bridge are ignored. Entries include the date/time, direction of travel, estimated vessel length, and estimated air draft. On heavy traffic days, determining the sequence of boats passing through the bridge requires careful processing as multiple vessels can appear in a single frame.

In addition to the boat data, the cameras also record bridge operations. At each bridge closure, reviewers record the date/time stamps of a) the first movement of bridge closure, b) the first frame showing the passing train (if any), c) the last frame of the passing train (if any), and d) the first frame of the bridge opening. Both the opening and closing operations consistently run between 80 and 100 seconds (assumed average of 90 seconds). In some instances, the bridge will close without a train crossing. These closures appear to facilitate maintenance operations on the bridge.

Finally, the cameras are set to operate during daylight hours. Each day as the sun sets, the cameras enter sleep mode to conserve both battery power and memory space. Tests activating the low light function of the camera during evening hours proved ineffective. Often when the camera either



Figure 4. Installed camera housing

enters or comes out of sleep mode the bridge is in the down position. Reviewers record only observed data, so the beginning bridge motion (at dawn) or ending bridge motion (at dusk) may not be visible on the video and are therefore omitted from the spreadsheet. Such entries include a note describing the scene.

Data Processing

Periodically, the raw data are transferred to a master spreadsheet for further processing and statistical analysis. The master spreadsheet contains the entire vessel and bridge operation record. Several tabs calculate summary statistics for the period of record such as the number of boats for each hour of the day for all days in the record. Several histograms present data on the distribution of boats by hour, by boat length, and by air draft. Taylor Engineering presents a series of summary charts to the JID board monthly.

Period of Record

Data collection began during the afternoon of January 14th, 2014. Therefore, the first full day of data collection was Wednesday, January 15th, 2014. As noted above, data are recorded only during daylight hours. To date, the period of record is continuous with two exceptions. The first data gap resulted from camera failure between Thursday May 8th and Tuesday May 13th, a total of 6 lost days. The second data gap occurred between Wednesday, August 13th and Tuesday, September 2nd, a total of 21 lost days. Table 2 presents the current period of records as of the date of this report. Plans call to collect and process data through January 2015 to produce a total period of record covering a full year with the exception of the data gaps mentioned above.

Table 2. Period of Record

Start	Stop	Total Days
January 15, 2014*	May 7, 2014	113
May 14, 2014	August 12, 2014	91
September 3, 2014	September 30, 2014	28
October 1, 2014**	January 15, 2015**	107

* First full day of data

** Planned period of record pending

ANALYSES – BOAT COUNTS

Total Boat Counts

As noted above, the period of record (to date) covers the time frame from January 2014 to September 2014. Table 3 and Figure 5 present the total boats counted during each month. Notably, the months of January, May, August, and September include fewer than the maximum possible days. As such, the average boats per day totals (Figure 6) represent a normalized presentation of the data.

Table 3. Total Boats Counted per Month

Month	Days	Total Boats Counted	Average Boats per Day
Jan-14	18	1,964	109.1
Feb-14	28	6,073	216.9
Mar-14	31	7,220	232.9
Apr-14	30	7,979	266.0
May-14	25	7,791	311.6
Jun-14	30	8,318	277.3
Jul-14	31	8,782	283.3
Aug-14	12	3,462	288.5
Sep-14	28	4,457	159.2
Total		56,046	

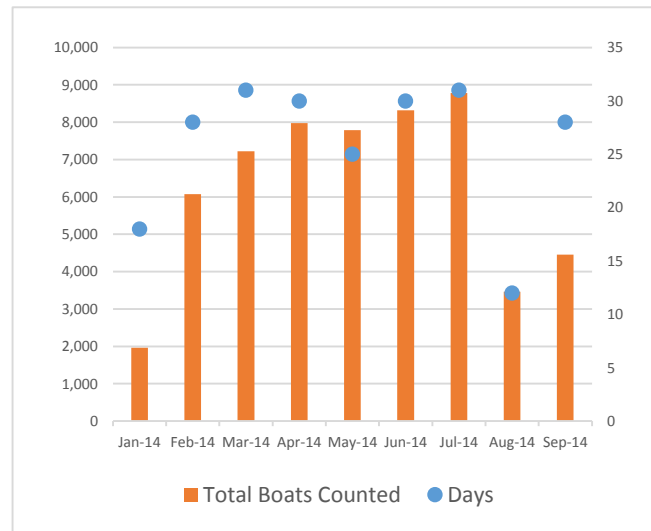


Figure 5. Total Boats Counted per Month

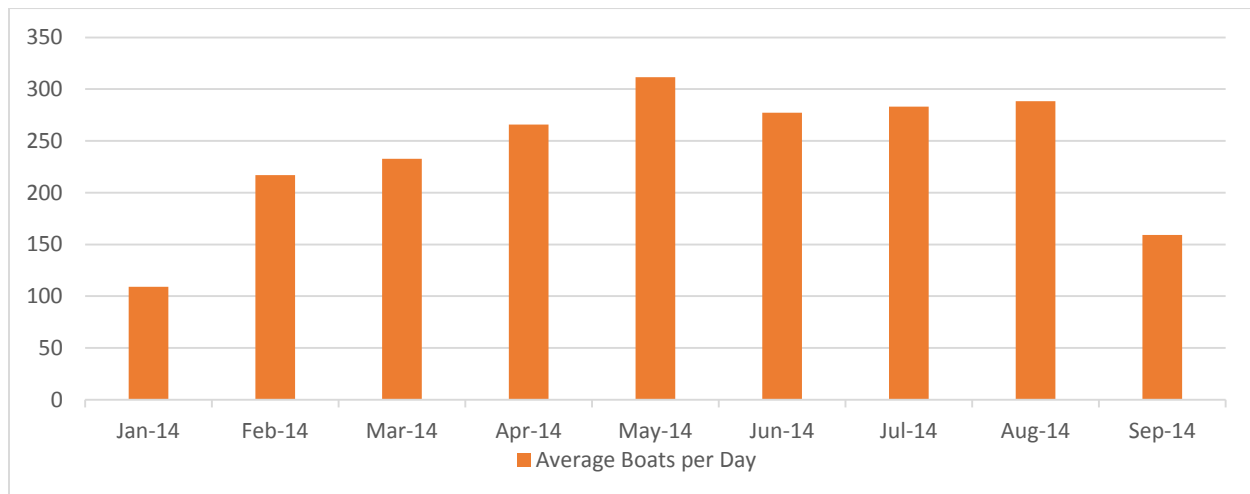


Figure 6. Monthly Average Boats per Day

July 2014 represents the peak month for total number of boats counted (8,782) while May 2014 produced the highest average number of boats per day (311.6). Interestingly, the summer months appear to experience higher boat traffic than the fall and winter months. This runs counter to the

seasonal population variation where south Florida counties see a large influx of residents and visitors during the winter months – commonly referred to as snowbird season.

Boats per Day of Week

The following discussion considers the data in terms of the day of week. As noted in Table 4 and Figure 7, the weekends constitute the peak traffic days while weekdays show considerably lower averages. Sundays are the highest traffic days with an average of 546.7 boats per day passing under the bridge. Saturdays also typically see high traffic levels with an average of 438.8 boats per day. Fridays and Mondays are generally much lower than the weekend days while Tuesdays, Wednesdays, and Thursday produce the lowest recorded traffic levels. Notably, the lowest average number of boats for any given day of the week is 116.3 on Tuesdays.

Table 4. Boat Count Statistics by Day of Week

Day of the Week	Total Boats Counted	Count	Average	Maximum	Minimum	Standard Deviation
Sun	18,042	33	546.7	961	226	170.9
Mon	5,411	33	164.0	1,022	53	166.4
Tues	3,954	34	116.3	217	16	50.3
Wed	3,991	34	117.4	262	19	59.0
Thurs	3,965	33	120.2	271	2	71.4
Fri	6,201	33	187.9	519	49	104.3
Sat	14,482	33	438.8	864	114	179.5
Grand Total	56,046	233	240.5	1022	2	

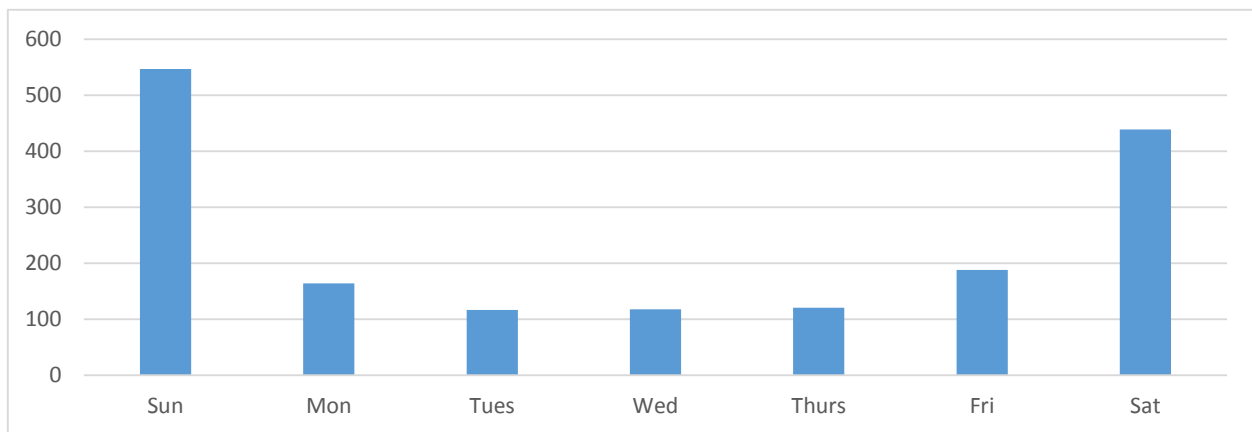


Figure 7. Average Boats Counted by Day of Week

Table 5 provides a list of the 34 highest traffic days within the period of record. Each of these days experienced *at least* 500 boats passing through the bridge. Similarly, 49 days experienced at least 400 boats, 61 days had over 300 boats, 91 days had over 200 boats. In fact 162 of the 232 full days with data experienced traffic equal to or greater than 116 boats.

Interestingly, the Memorial Day weekend (Saturday May 24th through Monday May 26th) produced the three highest traffic days recorded to date. Combined, this three-day holiday weekend saw 2,847 boats pass through the bridge.

Boats per Hour

Table 6 below summarizes hourly data for each of the 9 months in the period of record. Figure 8 shows the distribution of all traffic recorded based on the hour of the day. The distribution follows a typical bell shape with the peak during the 2PM to 3PM hour. Traffic tends to build steadily during the early morning hours with a broad peak at mid-day from about noon to 4PM or so. Traffic levels tend to fall off rapidly afterwards dwindling to very light levels just before dark.

Furthermore, a review of individual hours within the record reveal that during 195 separate hours traffic equaled or exceeded 60 boats – the equivalent of 1 boat per minute passing through the bridge. Similarly, 50 times the traffic level equaled or exceeded 90 boats in an hour – equivalent to 1.5 boats per minute. Finally, during 5 separate hours the traffic level reached or exceeded 120 boats – the equivalent of 2 boats per minute passing through the bridge.

Notably, the data have been corrected to account for both Daylight Savings and Standard Time in conformance with the local practice.

Table 5. Highest Traffic Days Recorded

Rank	Date	Boats Counted
1	Mon 5/26	1,022
2	Sun 5/25	961
3	Sat 5/24	864
4	Sun 4/6	833
5	Sun 4/27	822
6	Sat 4/26	683
7	Sun 5/4	682
8	Sun 8/10	674
9	Sun 7/20	670
10	Sun 3/9	656
11	Sun 3/23	656
12	Sat 7/12	653
13	Sun 6/22	652
14	Sun 5/18	644
15	Sun 6/15	641
16	Sat 4/19	634
17	Sat 7/19	634
18	Sat 7/5	633
19	Sun 6/8	629
20	Sun 3/2	624
21	Sat 6/28	621
22	Sat 8/2	612
23	Sun 2/2	611
24	Sun 2/16	604
25	Sun 7/27	601
26	Sun 7/13	572
27	Sun 3/30	567
28	Sat 4/5	562
29	Sun 2/23	557
30	Sun 9/28	554
31	Sat 4/12	536
32	Fri 7/4	519
33	Sat 6/21	513
34	Sun 9/14	500

Table 6. Hourly Boat Traffic Distribution

	Hours Starting																		
Total Boats	Month	Total Boats/Day	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	
1,964	JANUARY	Avg/hr		0.6	2.1	3.4	5.5	7.4	9.6	13.8	15.3	16.5	15.9	11.6	9.7	1.8			
		Max/hr		2.0	7.0	8.0	12.0	18.0	24.0	55.0	57.0	74.0	75.0	42.0	36.0	6.0			
		Min/hr		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
		n		17	17	17	17	17	17	17	17	17	17	18	18	18	18		
		StdDev		0.8	1.9	2.4	3.7	5.8	8.3	14.3	15.8	20.1	19.4	12.1	10.1	2.0			
6,073	FEBRUARY	Avg/hr	1.0	2.2	5.0	7.5	10.0	15.2	20.7	30.8	33.6	35.3	33.6	26.9	20.2	9.0			
		Max/hr	1.0	7.0	13.0	16.0	34.0	38.0	56.0	100.0	105.0	108.0	92.0	78.0	55.0	16.0			
		Min/hr	1.0	0.0	0.0	0.0	1.0	1.0	0.0	1.0	3.0	4.0	4.0	1.0	1.0	0.0			
		n	1	28	28	28	28	28	28	28	28	28	28	28	28	28			
		StdDev		2.1	3.7	4.2	6.3	10.2	13.9	26.2	28.6	28.8	24.3	20.4	12.3	4.4			
7,220	MARCH	Avg/hr		0.7	3.8	5.2	7.9	11.4	18.3	23.7	29.9	32.1	31.6	24.6	20.0	14.3	12.8		
		Max/hr		4.0	12.0	12.0	20.0	39.0	62.0	93.0	103.0	106.0	110.0	80.0	61.0	42.0	33.0		
		Min/hr		0.0	0.0	0.0	1.0	0.0	1.0	3.0	2.0	5.0	2.0	0.0	1.0	1.0	1.0		
		n		31	31	31	31	31	31	31	31	31	31	31	31	31	23		
		StdDev		1.0	3.4	3.0	5.3	9.4	17.8	22.4	29.0	30.1	30.3	23.3	17.4	11.1	9.9		
7,979	APRIL	Avg/hr	0.0	2.1	5.1	6.4	9.1	11.7	19.5	24.9	31.2	33.4	32.7	27.5	25.5	18.6	16.0	2.3	
		Max/hr	1.0	10.0	24.0	15.0	26.0	33.0	67.0	111.0	130.0	134.0	121.0	102.0	97.0	49.0	51.0	13.0	
		Min/hr	0.0	0.0	1.0	1.0	0.0	2.0	2.0	3.0	2.0	1.0	3.0	2.0	1.0	0.0	0.0	0.0	
		n	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	
		StdDev	0.2	3.0	5.2	3.7	6.0	9.4	16.3	24.2	33.0	33.1	31.1	27.3	23.7	14.3	12.6	3.3	
7,791	MAY	Avg/hr	0.0	4.2	5.2	7.4	10.8	15.7	23.5	27.9	33.8	37.1	35.7	34.0	28.7	24.4	17.6	5.6	
		Max/hr	1.0	18.0	22.0	22.0	41.0	56.0	95.0	112.0	109.0	134.0	121.0	104.0	108.0	74.0	59.0	16.0	
		Min/hr	0.0	0.0	0.0	0.0	1.0	2.0	3.0	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	
		n	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	
		StdDev	0.2	5.2	6.0	5.5	9.0	15.2	26.3	29.8	33.2	40.0	39.4	36.2	30.6	21.5	14.0	4.7	
8,318	JUNE	Avg/hr	0.4	4.1	6.0	9.3	11.2	15.2	21.0	27.7	33.0	33.1	33.2	27.0	19.9	15.9	12.8	7.4	
		Max/hr	3.0	20.0	23.0	17.0	28.0	46.0	74.0	80.0	94.0	93.0	99.0	97.0	67.0	42.0	38.0	29.0	
		Min/hr	0.0	0.0	0.0	2.0	0.0	3.0	4.0	1.0	7.0	6.0	5.0	4.0	1.0	2.0	0.0	0.0	
		n	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	
		StdDev	0.8	5.2	6.1	4.3	7.6	10.7	18.5	25.1	27.1	26.8	28.1	22.6	15.8	11.6	11.0	6.9	

Table 6. Hourly Boat Traffic Distribution

Total Boats	Hours Starting																	
	Month	Total Boats/Day	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00
8,782	JULY	Avg/hr	0.0	4.1	7.9	10.1	12.1	17.5	22.8	26.7	31.8	31.2	28.6	24.8	23.2	18.6	15.0	8.7
		Max/hr	0.0	15.0	26.0	27.0	38.0	38.0	67.0	83.0	99.0	88.0	97.0	73.0	71.0	65.0	40.0	27.0
		Min/hr	0.0	0.0	0.0	0.0	3.0	3.0	3.0	1.0	0.0	0.0	1.0	1.0	2.0	1.0	3.0	0.0
		n	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
		StdDev	0.0	4.1	6.7	6.5	7.6	11.4	18.8	23.6	29.5	23.8	26.0	21.5	19.2	13.9	10.4	7.5
3,462	AUGUST	Avg/hr	0.0	4.2	5.3	7.3	11.8	16.3	25.0	28.8	31.8	34.8	33.3	27.2	23.1	18.1	16.9	4.8
		Max/hr	0.0	12.0	12.0	14.0	25.0	34.0	52.0	82.0	85.0	78.0	95.0	77.0	69.0	41.0	37.0	17.0
		Min/hr	0.0	0.0	1.0	0.0	1.0	2.0	10.0	6.0	8.0	12.0	4.0	0.0	0.0	0.0	0.0	0.0
		n	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
		StdDev	0.0	3.6	3.6	4.5	7.5	9.8	16.4	24.7	22.1	23.4	28.3	23.4	20.7	13.2	11.3	5.5
4,457	SEPTEMBER	Avg/hr		0.7	3.3	5.3	7.6	9.5	14.0	15.9	18.1	18.5	16.9	15.2	13.9	12.4	8.0	0.1
		Max/hr		2.0	10.0	13.0	23.0	34.0	53.0	73.0	70.0	79.0	67.0	61.0	55.0	43.0	19.0	1.0
		Min/hr		0.0	0.0	1.0	2.0	1.0	2.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	0.0
		n		28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
		StdDev		0.7	3.3	3.5	5.0	8.2	14.9	17.9	19.4	23.2	20.1	15.4	13.1	9.7	6.2	0.3

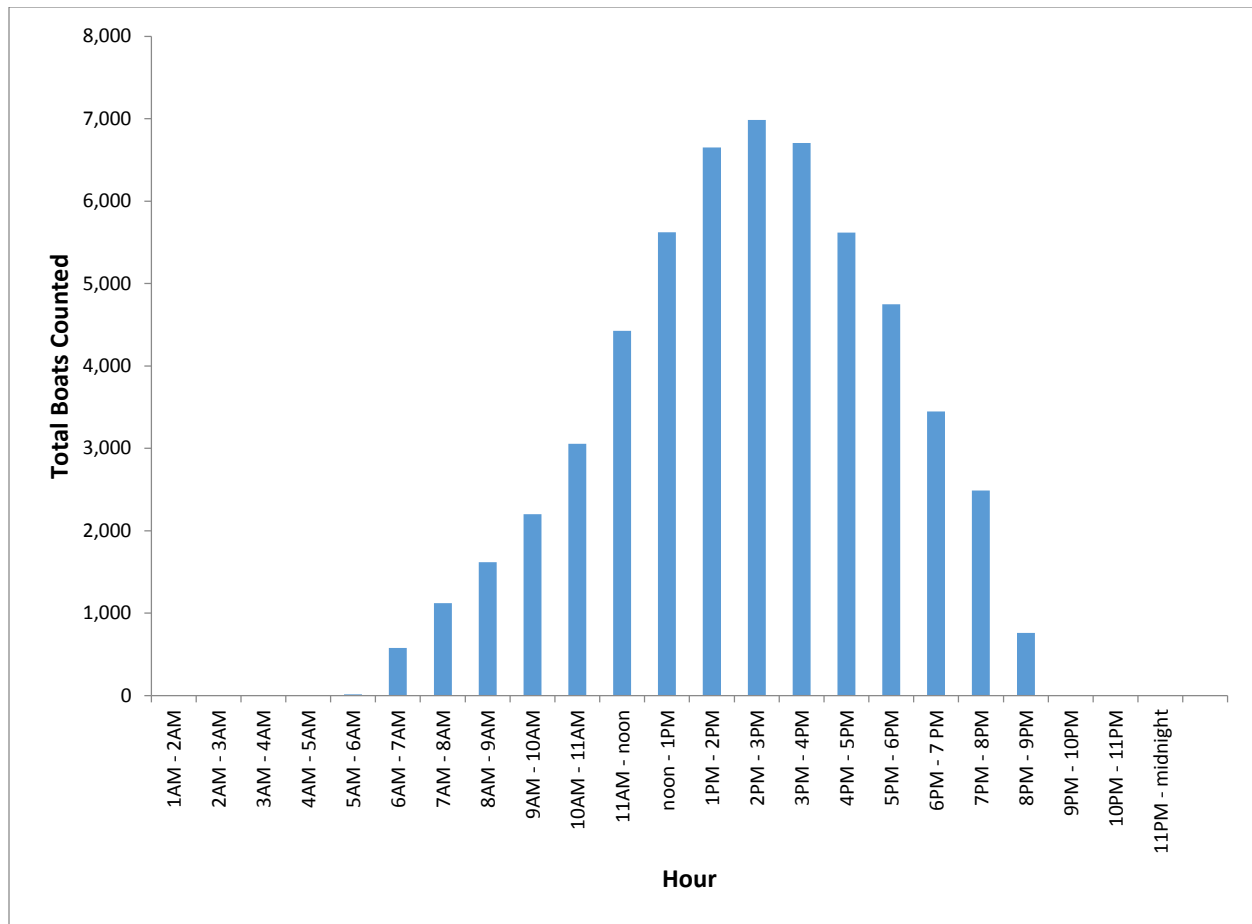


Figure 8. Histogram - Boat Distribution by Hour (daylight hours)

Boat Length Distribution

Figure 9 presents a histogram of the recorded boat lengths for the period of record. Boat length estimates fall within 5 ft range bins and cover boats less than 20 ft, 21 to 25 ft, 26 to 30 ft, 31 ft to 35 ft, and greater than 35 ft. Approximately 46% of all recorded boats fall within the less than 20 ft category with progressively fewer boats in each of the subsequent larger bins.

Notably, boat length plays only a very minor role when considering the navigability of the river in the vicinity of the Loxahatchee River Railroad Bridge.

Air Draft Distribution

Air draft (Figure 10) plays a key role when addressing local navigability and the impact of bridge operations on boat traffic. Air draft estimates focus on the highest fixed segment of a boat. Boats with outriggers, bimini tops, and antennae are recorded as if these movable features have been lowered. Conversely, T-tops, radar domes, and center console setups are generally fixed features and frequently represent the highest fixed point on a boat.

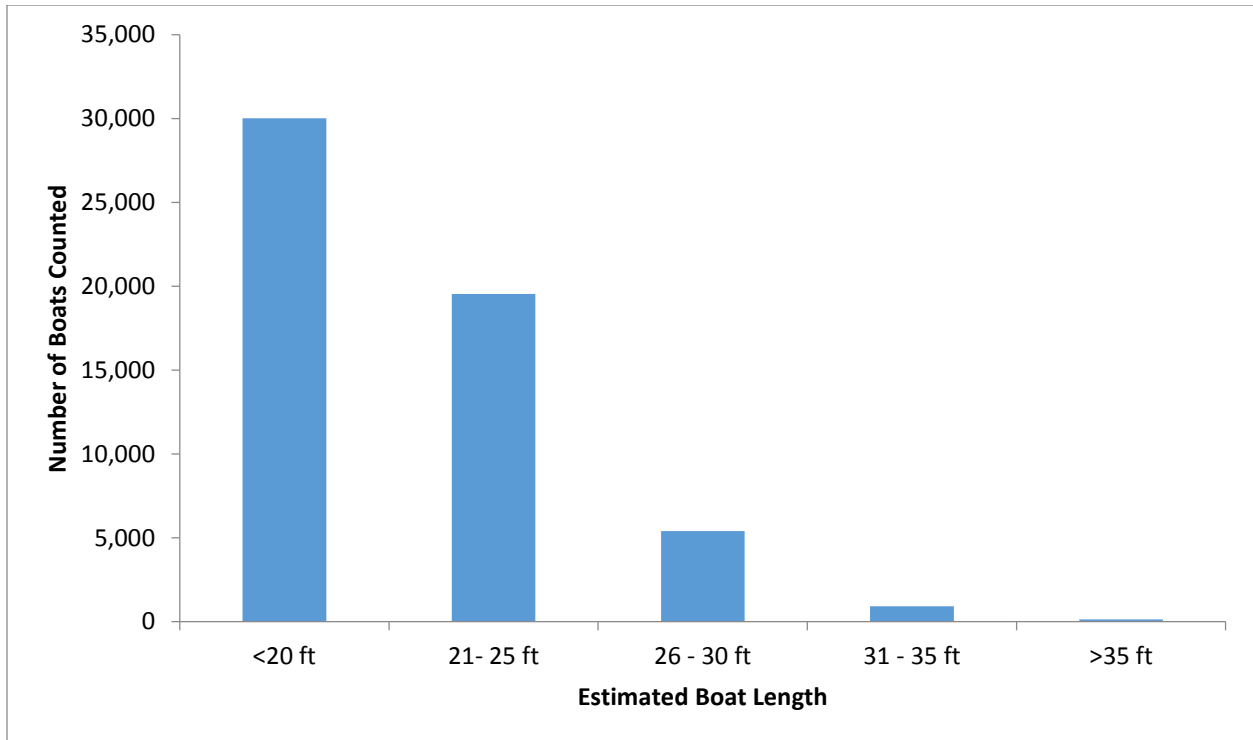


Figure 9. Histogram - Distribution by Length (daylight hours)

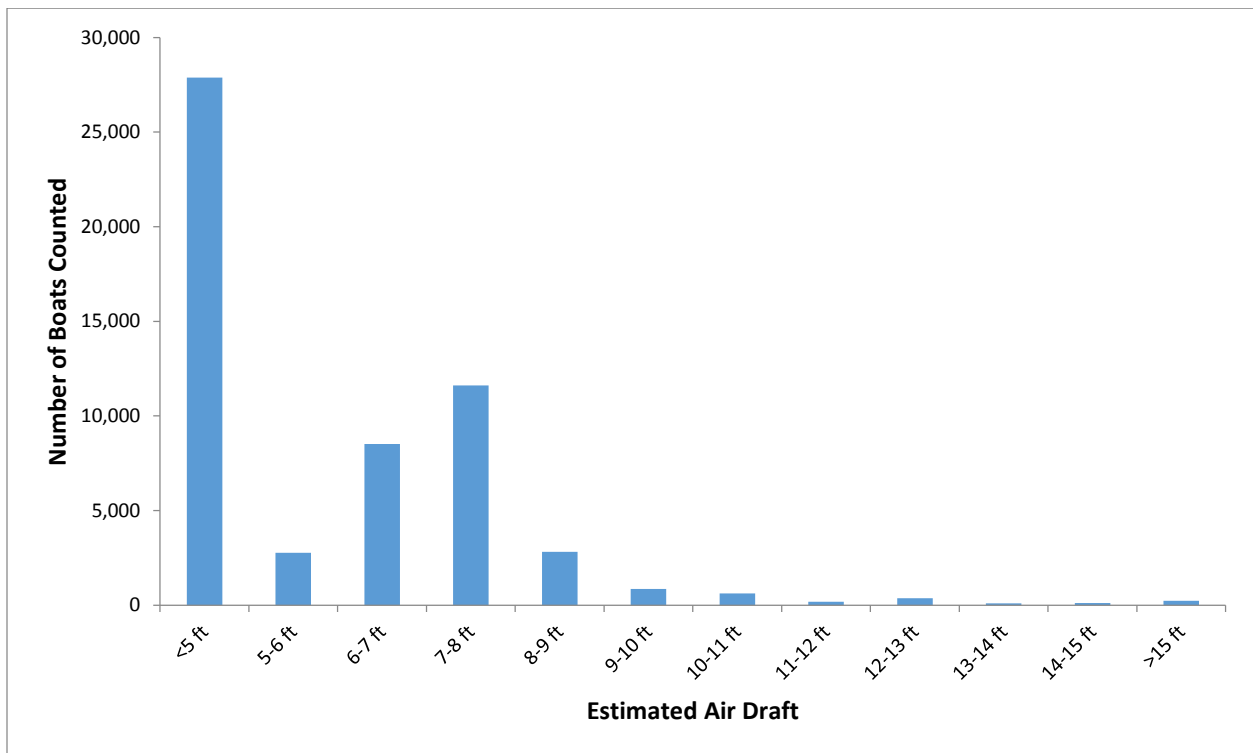


Figure 10. Histogram - Distribution by Air Draft

The air draft distribution shows two peaks – a large peak for boats with air draft less than 5 ft and a smaller peak for 7-8 ft air draft boats. The less than 5 ft air draft boats represent slightly less than 50% of all boats counted. These boats are generally low profile and lack a T-top or other permanent superstructure. Technically, these boats have the ability to pass through the bridge when closed, however we have observed many instances where captains of these smaller boats have been hesitant to attempt passing with the bridge down presumably due to clearance concerns.

Figure 11 provides the cumulative distribution of all boats counted based on the estimated air draft. Given the bridge's current vertical clearance is reportedly 5 ft, 27,879 (49.7%) boats counted in the period of record can pass the existing bridge when closed. Table 7 presents the additional number and percentage of boats capable of passing the bridge with a given, hypothetical additional vertical clearance. The table also presents the gross number of additional boats and the percentage increase in total boats counted when compared to the existing condition.

For example, if the bridge was hypothetically raised to provide an additional 5 ft of vertical clearance, a total of 54,444 boats could pass under the bridge when closed. This is 26,565 boats more than the existing condition. Similarly, 97.1% of all boats counted could pass under the bridge when closed. This represents an increase of 47.4% of the total boats counted. These numbers assume captains piloting boats with air drafts near the bridge clearance value will pass when closed.

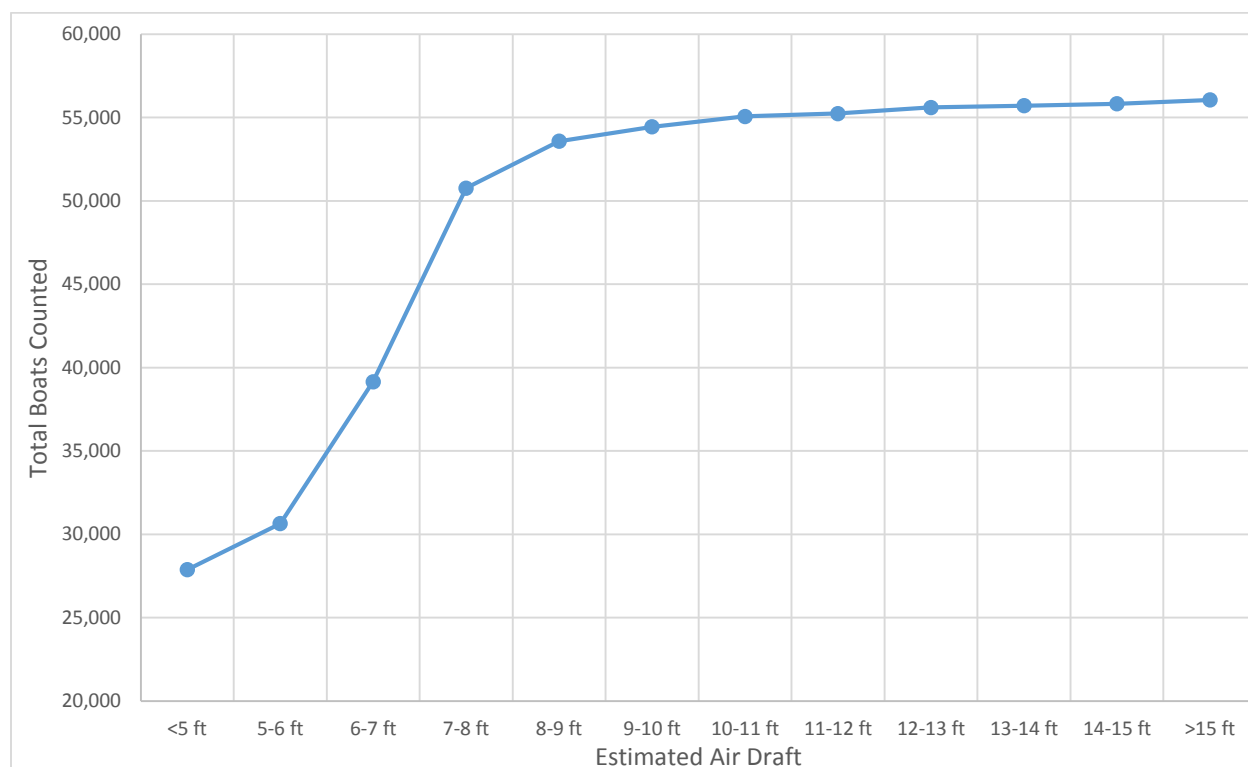


Figure 11. Cumulative Distribution by Air Draft

Table 7. Number and Percentage of Counted Boats Capable of Passing Bridge with Additional Vertical Clearance

Bridge Vertical Clearance	Total Boats Capable of Passing	Increase from Existing Condition	Percentage of Boats Capable of Passing	Percentage Increase from Existing Condition
Existing	27,879		49.7%	
Raise 1 ft	30,640	2,761	54.7%	4.9%
Raise 2 ft	39,154	11,275	69.9%	20.1%
Raise 3 ft	50,766	22,887	90.6%	40.8%
Raise 4 ft	53,582	25,703	95.6%	45.9%
Raise 5 ft	54,444	26,565	97.1%	47.4%
Raise 6 ft	55,063	27,184	98.2%	48.5%
Raise 7 ft	55,240	27,361	98.6%	48.8%
Raise 8 ft	55,604	27,725	99.2%	49.5%
Raise 9 ft	55,706	27,827	99.4%	49.6%
Raise 10 ft	55,819	27,940	99.6%	49.8%

ANALYSES - BRIDGE OPERATIONS

Closings per day

Video files provide documentation of bridge operations in addition to boat traffic. Reviewers record four distinct times during each closing. The first time recorded corresponds to the first movement of the closing bridge – this indicates the beginning of a closing cycle. The second recorded time corresponds to the first frame that a freight train appears on video. The third recorded time corresponds to the last frame that the freight train is visible. In the event that the bridge closed without a freight train crossing, the second and third times are omitted. Finally, the last time recorded corresponds to the first opening movement of the bridge.

Frequently, as the camera is either waking up in the morning or closing down in the evening (based on ambient light conditions) the bridge will be in mid-cycle. In the mornings this manifests as the bridge down when the camera turns on – as such reviewers cannot record the beginning of the cycle in such conditions. Similarly, at dusk as the camera shuts down the bridge may be closed. As such reviewers may miss some of the train arrival/departure or bridge opening times. Importantly, at all times reviewers record only those bridge operations visible on the video.

Table 8 provides summary statistics of the bridge operations recorded to date. Notably, the average length of time the bridge is down when a train crosses is slightly over 20 minutes. Table 8 describes the three components making up this cycle time – the lead time, train crossing, and lag time. The average closing time drops to just over 19 minutes when considering all closings.

Table 8. Bridge Operations Summary Statistics

Statistic	Closing Lead Time	Train Passing	Lag Until Opening	Total Time Obstructed (Train)	Total Time Obstructed (All Closings)
Count	785	818	813	769	1019
Average	0:15:04	0:03:24	0:02:01	0:20:08	0:19:09
Std Dev	0:10:14	0:05:00	0:04:22	0:12:37	0:13:12
Max	4:26:20	1:14:57	1:04:43	4:59:20	4:59:20
Min	0:02:37	0:00:00	0:00:40	0:04:00	0:01:20

With these data, the following criteria may be determined based on the time differences between observations:

- Closing Lead Time – time between train arrival and first closing movement of the bridge
- Train Passing – time between first and last frames with train visible
- Lag Until Opening – time between bridge’s first opening movement and last visible train frame
- Total Time Obstructed (Train) – time between bridge’s first closing and first opening frame when a train crossed
- Total Time Obstructed (All Closings) – time between bridge’s first closing and first opening frame regardless of whether a train crossed

Table 9 provides a breakdown of bridge operations based on the day of the week. To date, the highest total closure time occurs on Thursdays. The longest average time closed per closure occurs on Tuesdays. These midweek days correspond to the lowest boat traffic levels observed. Conversely, Sunday experiences the least amount of closure time and the highest boat traffic levels in the period of record.

Figure 12 provides a graphical representation of total bridge closure time per day (daylight hours only). This is the sum of all closures during any given day. The overall average closure time per day across the entire period of record is 1:29:17.

Table 9. Bridge Closing Statistics by Day of Week

Day of Week	Total Closure Time (hh:mm:ss)	Count	Average Time Closed per Closure (hh:mm:ss)
Sun	15:24:29	57	0:16:13
Mon	57:28:44	179	0:19:16
Tues	65:13:12	193	0:20:17
Wed	55:14:10	183	0:18:07
Thurs	69:35:27	225	0:18:33
Fri	47:46:53	180	0:15:56
Sat	36:00:20	137	0:15:46
	346:43:15		

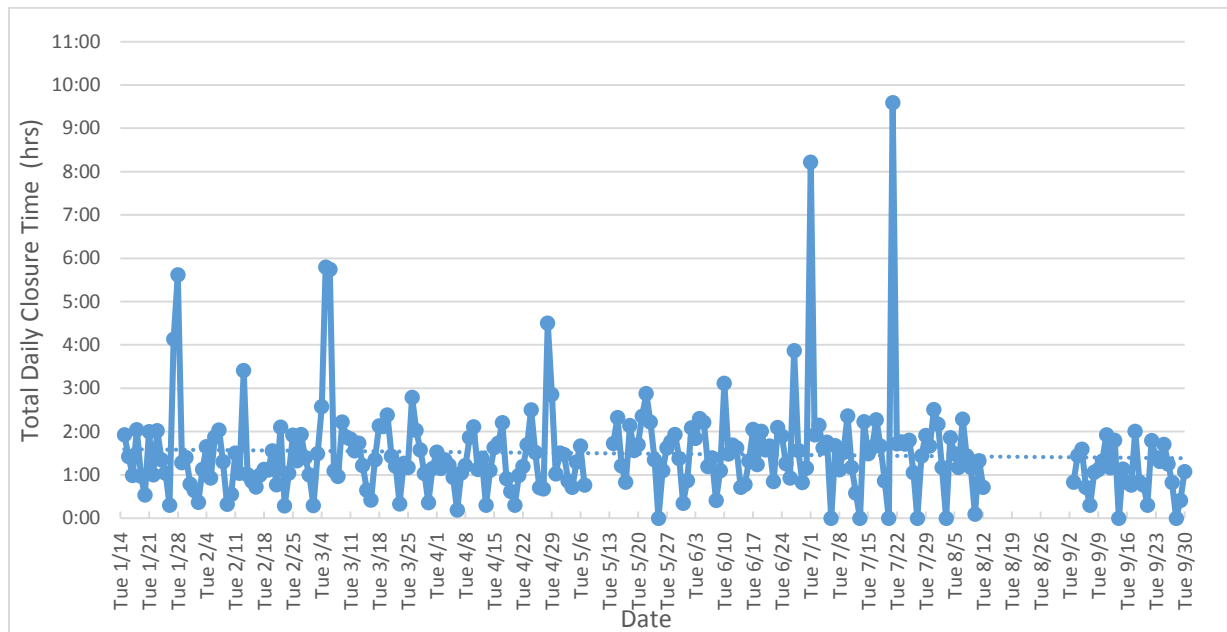


Figure 12. Total Bridge Closure Time per Day (daylight hours)

NAVIGABILITY

The following issues affect the overall navigability of the Loxahatchee River in the vicinity of the railroad bridge.

Bridge Opening Width

The draw span opening of the Loxahatchee River Railroad Bridge is approximately 37 ft wide. Given the typical boat size operating in and around the river, prudence dictates one way traffic between the bridge fenders to ensure safety. However, on many occasions simultaneous two way traffic occurs. This can easily create an unsafe condition as maneuverability is extremely limited between the fenders. Additional width within the crossing would provide significant safety improvements to the existing condition.

View

The combination of the railroad bridge superstructure, the Alternate A1A bridge superstructure and the orientation of the Intracoastal Waterway (ICWW) channel and Loxahatchee River channel produce difficult conditions for boaters to see the state of boat traffic on the opposite side of the bridge. Boaters traveling north on the ICWW wishing to enter the Loxahatchee must perform a hard turn to port to pass through the draw span. The view to the west leading up to the turn is almost entirely blocked by the railroad bridge. Similarly boaters traveling south on the ICWW must make a hard turn to starboard

to enter the Loxahatchee. The view during this operation is blocked by the bridge abutment and fender system.

The Loxahatchee River channel makes a slight change in alignment due to the orientation of the fender system and draw span. This alignment shift results in difficult viewing conditions leading up to the bridge crossing. Just as traffic on the east side of the bridge has difficulty viewing oncoming traffic from the west, the same can be said for boaters traveling east.

Currents

The bridge is subject to tidal fluctuations that result in peak surface currents in the 2 to 4 feet per second (fps) range. During ebb conditions boaters traveling with the current from the west must commit to passing through the bridge opening as the likelihood of reversing course after entering between the fenders is problematic. Similarly, flood currents require boats traveling from east to west to commit to the maneuver with little hope of reversing course once begun. When taken together with the view limitations, local currents negatively affect navigability.

Depths

Water depth has the potential to impact navigability of the area. However, the previously mentioned tidal currents help to maintain a fairly consistent water depth in and around the bridge opening. With the limitation on height (from the fixed Alternate A1A bridge) and beam (by the draw span width) the existing depths appear sufficient to handle the existing boating population.

Traffic levels

As detailed throughout this study, boat traffic levels at the bridge are quite high. The boating traffic clearly peaks during weekends and drops precipitously during weekdays. Similarly, the traffic appears to peak during the warmer spring/summer/fall months and drops during the winter months.

Concluding Comment

Critically, all of the navigability issues addressed above exist today. The addition of up to 32 additional bridge closures will only increase the danger to boaters in the area.

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

December 3, 2014

Mr. John Winkle
Federal Railroad Administration
1200 New Jersey Avenue, SE Room W38-311
Washington, DC 20590

**RE: All Aboard Florida Passenger Rail Project Draft Environmental Impact Statement
and Section 4(f) Evaluation**

Dear Mr. Winkle:

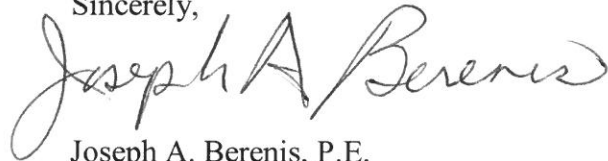
The Central Florida Expressway Authority (Authority), formerly known as the Orlando-Orange County Expressway Authority or OOCEA, has reviewed the referenced document and has the following comments.

1. Although the Authority has been working with All Aboard Florida (AAF) representatives for several years and preliminary agreements have been executed, all agreements necessary for the passenger rail to be constructed within the Authority's right of way are not finalized as is referenced in several sections of the DEIS. However, the Authority is willing to continue the ongoing coordination to ensure the appropriate agreements are executed if an acceptable alignment option is identified.
2. In section 3.2.3 *Level 3 Screening – East West Corridor Alignment Options*, the DEIS presents several alignment options that have varying impacts to the Authority's SR 528 right of way (see Figures 3.2-4 and 3.2-5).
 - a. Option 3A, which would locate the proposed passenger rail tracks within the Authority's existing 300 foot right of way, is not acceptable. This option could potentially impact the future operations and expansion of SR 528. The Authority would not grant permission for this option.
 - b. Option 3C, which proposes the passenger rail tracks "straddle" the SR 528 south right of way line, is not preferable to the Authority. The DEIS states "According to AAF, Option 3C would not preclude the future expansion of SR 528." While this statement may generally be factual, locating the tracks within the existing SR 528 right of way will limit the Authority's future opportunities for maintaining and expanding its system and possibly result in increased costs. At this time, given the preliminary level of details, the Authority would not prefer this option.
 - c. The Authority has no preference or objection to Option 3D, which proposes locating the passenger rail tracks in a new corridor located approximately 400 feet south of the existing SR 528 right of way.

- d. Option 3E, which proposes to locate the new passenger rail tracks on average between 100 and 200 feet south of the southern edge of the existing SR 528 right of way, is acceptable to the Authority. The Authority is willing to continue the ongoing coordination with the adjacent property owners to obtain the right of way necessary to implement this option. Additionally, the Authority is willing to continue the ongoing coordination with AAF to refine this option and ensure a design acceptable to both parties is developed.
3. In general, the Authority is supportive of the AAF passenger rail project as long as its implementation does not hinder the Authority's ability to serve the transportation needs of the region in accordance with Florida State statutes and satisfy the requirements of outstanding bond covenants.

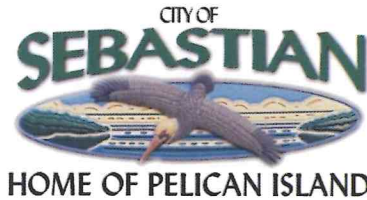
The Authority appreciates the opportunity to review the DEIS and looks forward to further coordination with AAF and the Federal Railroad Administration as appropriate.

Sincerely,

A handwritten signature in black ink, reading "Joseph A. Berenis". The signature is fluid and cursive, with the first name "Joseph" being the most prominent.

Joseph A. Berenis, P.E.
Deputy Executive Director

cc: Chairman Cadwell
G. Pressimone
N. Silva, Atkins



COMMUNITY DEVELOPMENT DEPARTMENT

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TELEPHONE (772) 589-5518 ■ FAX (772) 388-8248
www.cityofsebastian.org

Mr. John Winkle
Federal Railroad Administration
1200 New Jersey Avenue, SE Room W38-311
Washington, DC 20590

December 1, 2014

RE: Comments to Draft Environmental Impact Statement (DEIS)
Project: "All Aboard Florida" (AAF)

The City of Sebastian has reviewed the DEIS for AAF (the Project) and have identified numerous comments and deficiencies within the technical document per the NEPA process. Attached to this comment letter are letters, surveys and correspondence received by the City regarding concerns of this project which the City is officially submitting to be addressed as part of the NEPA review process.

In addition, the City believes that the document is inadequate and does not follow the "Scoping" process as stated in the DEIS, page S-4, which states,

"Scoping- an early and open process for identifying significant issues related to a project. As part of the scoping process, agencies and the public are invited to participate and provide comment. A series of public scoping meetings for the Project were held in April and May 2013 in Orlando, Fort Pierce, West Palm Beach, Fort Lauderdale and Miami and an agency scoping meeting was held in April 2013. Agencies and the public provided input that informed the scope and content of the environmental studies conducted for the DEIS, including concerns about noise and vibration impacts, impacts to navigation, impacts to wildlife and protected species, safety and traffic operations at grade crossings. The public comments also indicated in interest in additional stations and the opportunity to include a bicycle trail within the railroad right-of-way (ROW)."

As stated above, nowhere does it state that Indian River County or any of the cities within Indian River County near or along the railroad tracks which includes

the City of Sebastian were contacted to participate in the "early and open process". Therefore, information, appendices, maps, etc., in the DEIS is insufficient, incomplete or missing.

Additionally, the public meeting held on November 5, 2014 at Indian River State College, Mueller Center displayed a map that did not include the City of Sebastian or the City of Vero Beach. Also, where are the comments from these meetings? They were not provided.

CITY OF SEBASTIAN COMMENTS

INTRODUCTION

Section 1.1 and 1.1.2 states, "FRA and AAF conducted an environmental review of Phase 1 in 2012/2013, including preparing and issuing both an Environmental Assessment (EA) (Environmental Assessment and Section 4(f) Evaluation for the All Aboard Florida Passenger Rail Project West Palm Beach to Miami, Florida)", "As a result of the environment review process conducted by FRA in cooperation with AAF for Phase I, AAF is authorized to construct the Phase I component of the Project as reviewed and approved in the 2012 EA and FRAs subsequent FONSI. Since the FONSI, AAF proposed and FRA has evaluated a new location for the proposed ..."; "...impacts exclusively from Phase 1 have already been addressed in the 2012EA and FONSI and will not be reanalyzed in the DEIS."

Comment: Justify why the project was split into two phases. The typical NEPA process cannot split a corridor project. The Project needs to be independent.

Section 1.1.2 states, "The Project includes purchasing five additional passenger train sets, and would add 16 new round trip intercity passenger train trips (32 one-way trips) on the new railroad segment and on the FECR Corridor between Cocoa and West Plan Beach. No additional trips beyond those considered in the 2012 EA (16 round-trip) intercity passenger train trips [32 one-way trips] would be added on the West Palm Beach to Miami section."

Comment: What about freight trains? Note the existing number of freight trains and the additional freight train trips.

Section 1.3 states, "FRA requested that FAA act as a cooperating agency on the EIS, and the FAA agreed. The Project will require FAA review and approval over changes to FOAA property. Under 49 USC sub-section 401, the FAA has jurisdiction over the layout of airports, including but not limited to approval of airport layout plans, airspace, and facility development."

Comment: The City of Sebastian requested to be part of the cooperating agency due to local knowledge and expertise and was excluded as being a cooperating agency. Why?

Purpose and Need for the Proposed Action

Section 2.1 states, “Project would consist of a 235-mile long intercity passenger rail service with anticipated three-hour travel time. Improvements needed to support the service would include both construction within existing railroad rights-of-way (ROW) and new construction outside of existing railroad corridors.

Comment: The DEIS does not identify where outside? The following are not specified in the DEIS: New Construction activity, existing street crossing impacts and limits outside the corridor.

Section 2.3.4 states, “The municipal areas at the two ends of the project corridor are among the five largest cities in Florida, with Miami, at the southern end of the Project Corridor, is the second largest city in Florida (BEBR 2011a; Schlueb 2013).”

Comment: There isn't any mention of Indian River County or other local cities between the two destinations, why not?

Section 2.3.4 illustrates in Table 2.3-4 Population Employed Outside of the County of Residence. It states that 85% are employed in County of residence while 15% are not.

Comment: The DEIS needs to provide support on where the resident population are employed outside the County?

Section 3.2 states, “Level 2 was more fine-grained and evaluated segment alternatives within the preferred route.”

Comment: DEIS report does not provide evaluation of preferred route in relation to Indian River County and the local cities.

Section 3.2 states, “FRA has independently evaluated AAF's analysis, validated assumptions, and has prepared the following summary of the alternatives evaluation process.” The “Screening Alternatives Chart shows a Process at “Level 2 Connection Alternatives”.

Comment: What about the impacts to Indian River County crossings and the seven street crossings within the City of Sebastian.

Section 3.2.1.1 states, “The primary screening criteria used at this level was developed to assess (1) whether the alternative satisfies the purpose and need of the Project, (2) whether the alternative is practicable to construct and operate (satisfies AAF’s specified critical determining factors), and (3) to what degree the alternative would have impacts to key environmental resources.”

Comment: What is the purpose and need of the project? Who and what determines whether the alternative is practicable to construct and operate? What are the AAF’s critical determining factors? What degree is considered to have impacts or not to key environmental resources?

Section 3.2.1.1 states, “...a 300-foot wide corridor centered on the track. This corridor includes the 100-foot ROW in which direct consequences (losses) of the resource would be anticipated, and an additional 100 feet on either side of the ROW where indirect effects to the resource could occur.”

Comment: Environmental impact is within 300 foot width---there are many homes and businesses within 300’ of the corridor in Sebastian. This was not addressed within the North-South Corridor and the area along the City of Sebastian. Please address.

Section 3.2.1.3 states, “The CSX Route Alternative does not meet the Project purpose. Trip times would exceed the 3-hour target.” Table 3.2-1 Screening Analysis Results – Level 1 Route Alternatives.

Comment: The purpose is not stated. What is the purpose and the time of the CSC route?

Comment: Under FECR columns clarify: What is meant by “Partial” for sections: “Use of Existing Infrastructure” and “Train Signaling and Control Systems”.

Comment: Under FECR columns, how were the quantities calculated for sections: Environmental: Wetlands and Waterways – Amount of resource directly or indirectly affected (134 acres); Conservation Lands – Amount of resource potentially affected (5 miles); Threatened and Endangered Species – Number of habitats directly or indirectly affected (11).

Section 3.2.2 states, “The FECR Route Alternative (connecting Orlando at the proposed GOAA Intermodal Station to the proposed AAF West Palm Beach Station) consists of a sequence of connected segments. The segments include the western terminus at MCO (the MCO Segment), the East-West Corridor (E-W Corridor), the connection between the E-W and the North-South Corridors (E-W/N-S Connector), and the North-South Corridor (N-S Corridor).”

Comment: There isn't any mention of an Alternate route within Indian River County and City of Sebastian crossings. Why?

Section 3.2.2.1 states, "The total number of at-grade crossings would potentially impact train speeds as trains must reduce speeds in some areas with at-grade crossings;" "New at-grade crossings would add to the Project cost and would impact traffic on local roads. Improvements or widening of existing at-grade crossings would also impact Project cost. The number of at-grade crossings for each alternative was estimated using GIS mapping."

Comment: What is the total number of at-grade crossings?

Comment: What are the costs for the safety improvements at each grade crossing and what are the cost for the seal corridor safety improvements?

Section 3.2.2.6: Table 3.2-2 presents the results of the Level 2 screening analysis. Column Criterion "At-Grade Crossings" number of new or extended crossings states a number "8" under column 2A.

Comment: Why weren't impacts evaluated to street crossings and the nearby intersection of US1 within Indian River County and the City of Sebastian?

Comment: What does the number "8" represent?

Comment: Explain the 2A, 2B, 2B GOAA and 2C.

Comment: Under Threatened and Endangered Species – Number of habitats directly or indirectly impacted under 2B states "11". Where are the 11?

Section 3.3.2 states, "3.3-1 shows the future freight operations within the FECR Corridor that would occur in the absence of the Project. "

Comment: Table 3.3-1 illustrates in 2013 there are 14 trains on average. Total existing trains "14" is not consistent in DEIS.

Section 3.3.2 states, "Currently, the prevailing train control system on the FECR Corridor is commonly known as a "cab with wayside" type system. It utilizes wayside color light signals at interlockings that control safe switching trains from mainline track to mainline track to controlled sidings. The control system is "route-signaling" augmented y in-cab.... FECR is required by FRA regulations to implement a new signal system that will provide positive train control (PTC) by 2015 (49 CFR Part 229). PTC systems are integrated command, control, communication, and information...."

Comment: How does PTC coordinate at existing traffic signal crossings with the existing traffic signal systems along US 1 which are operated by local agency or FDOT?

Section 3.3.3 states, “A new signal system would be implemented as part of the Project that will provide a PTC overlay system with a back office server in the operations control center to achieve compliance with 49 CFR part 229.”

Comment: State how train PTC System will work with the existing traffic signal systems since they are two different systems?

Section 3.3.3.3 – North-South Corridor – “The approximately 128.5 miles of the N-S Corridor between Cocoa and West Palm Beach (3.3-3) is part of a larger existing 351-mile system currently operating as a freight railroad.”

Comment: What are the project miles within Indian River County and within the City of Sebastian?

Section 3.3.3.3 states, “The proposed improvements include upgrades to bridges and grade crossings, as well as new signalization, new communication systems, and PTC systems. ... The new construction and improvements proposed along the FECR Corridor are: Improve approximately 128.5 miles of rail line; ... Eight miles of new third track; Upgrade highway and pedestrian crossings; and upgrade signals and grade crossings.”

Comment: Where are pedestrian crossings and safety upgrades for the grade crossings within the City of Sebastian since the city has identified to AAF sidewalk improvements to the three grade crossings on Barber Street, Schumann and Main Street?

Section 3.3.3.3 states, “Drainage would be accommodated using an existing channel along the east or west side of the ROW. In some cases, this would require relocating existing drainage channels within the ROW”; “At-Grade Crossings – There are approximately 170 highway-rail crossings within the N-S Corridor, of which 159 are at-grade and 11 are grade-separated”...”FECR is responsible for maintenance of the crossing equipment. Each affected highway-rail grade crossing will go through a diagnostic team review to determine the appropriate level of warning. To mitigate noise impacts from train horns AAF has committed, as part of the Project description, to install pole-mounted horns at all highway-rail grade crossings on the N-S Corridor and the WPB-M Corridor unless the community establishes a quiet zone.”

Comment: Where is the report and findings from the Field Diagnostic Review that was completed on July 14m 2014? Where is the report and findings for the safety improvements and grade crossing improvements in Indian River County?

Comment: The DEIS did not address the cities that have submitted for the Notice of Intent for Quiet Zones and how does that differ from the AAF sealed corridor improvements? The DEIS needs to identify and address the quiet zones and sealed corridors.

Comment: Project Mitigation is to install pole mounted horns? Are these wayside horns? Where will they be located?

Section 3.3.3.6 states, “Positive Train Control (PTC) System – AAF will implement a PTC system throughout the Project, including the E-W Corridor between Orlando and Cocoa, and the N-S Corridor between Cocoa and Miami. The new PTC system will be interoperable between the AAF and FECR trains. AAF will outfit 55 FECR locomotives as well as its own locomotives to avoid any incompatibility issues. ... AAF will use the existing FECR Radio Base Stations. Parallel additional 11 towers in the planning process.”

Comment: Where will the towers be located? Specify sites and heights.

Section 3.4 Operations – Table 3.3.9 – The projected Average Passenger Rail Operating Speeds by County indicate in 2013/2016 Freight No-Action Alternative speed at 38.57 mph; in 2016 Freight (with Project) 43.45 mph, and 2016 Passenger speed at 103.34 mph.

Comment: The Freight and Passenger speeds vary in other reports.

Alternatives Considered in this DEIS

Why aren't the tracks being built in the center of the state, along I-95?

Why weren't overpasses considered for certain railroad crossings?

Environmental Effects

What are the environmental effects for the City of Sebastian?

Land Use and Transportation

Section 4.1 states, “The Project Study Area for land use includes the 50-foot wide existing track bed along the N-S Corridor plus 125 feet on either side (east-west) (east and west) and a 50-foot central track bed plus 125 feet on either side (north-south) for each of the E-W Corridor alternatives”; “Indian River County: Commercial and Services, Industrial, and undeveloped lands.”

Comment: $125' + 125' + 50' = 300'$; Note: The study corridor width is 300' wide, why are homes and businesses within the 300' not addressed?

Comment: What about residents, homes and mobile homes within the 300' width in the City of Sebastian?

Section 4.1 states, “The N-S Corridor passes through several incorporated municipalities: Cocoa, Melbourne, Vero Beach, Fort Pierce, Jupiter, Palm Beach Gardens, Riviera Beach, and West Palm....The existing FECR Corridor traverses established and heavily developed areas of the three counties. Land uses transition from high density, central business district urban, to medium density residential, to industrial and commercial uses.”

Comment: The City of Sebastian was not included. Why?

Section 4.1 – Land Use Plans states, “Table 4.1.1-1 lists the relevant land use plans for those counties crossed by the Project.” The Table 4.4.4-1 lists various counties and cities master plans.

Comment: The City of Sebastian has a Comprehensive Master Plan. DEIS does not include it. Why?

Section 4.1.2.1 states, “The existing freight traffic consists of an average 15 trains per day with a low of nine daily trains on Saturday and a high of 17 daily trains Tuesday through Thursday.”

Comment: This statement does not match page 3-26 – 14 trains average.

Section 4.1.2.6 states, “The N-S Corridor crosses 159 roadways at grade between Cocoa and West Palm Beach (AAF 2013c).” Table 4.1.2-3.

Comment: The statement above is not consistent with the statement between pages 3-37 stating 170 roadways and 11 grade separations. Explain.

Section 4.1.2.6 Table 4.1.2-4 shows 18 Crossings in Indian River County.

Comment: The total train crossings are not consistent with page 4-8 which has 14 trains and not 18?

Section 4.1.3.2 states, “St. Sebastian River is a tidal waterway on the border between Brevard and Indian River Counties.”

Comment: The St. Sebastian River is within both Brevard and Indian River County.

Section 4.2.1 states, “The primary type of emissions contributing to air pollution in the Project Study Areas is mobile source emissions from combustible engines such as automobiles. Table 4.2.1-3 shows existing mobile source emissions for 2008, the most recent year available, for the Phase II Project area.”

Comment: Was a comparison study conducted regarding the figures shown for Indian River County emissions of CO, NO_x? If so, where is the comparison? If not, why wasn't it conducted?

Section 4.2.2.1 states, "Environmental noise fluctuates over time, so noise levels over a stated period of time (1 hour) are commonly represented by the "equivalent sound level," L_{eq}. The "day-night average" sound level (L_{dn}) is a noise metric that represents the equivalent sound energy over a 24-hour period, with a 10-db penalty added to noise events occurring between 10:00 PM and 7 AM. This penalty is intended to compensate ..."

Comment: What about the increment impact of train horns X 32 trains and the freight trains X 14, or X 18?

Section 4.2.2.2 states, "Vibration that propagates into buildings can cause the floors, walls, and ceilings of a room to radiate sound called ground-borne noise (GBN). GBN normally is characterized as a low frequency 'rumbling' sound. GBN is often not a concern for at-grade transit sources and buildings with windows and doors exposed to the transit sources because the contribution of noise from airborne paths can be more significant than the contribution of GBN."

Comment: There needs to be more specific evaluations regarding soil types and how vibration passes through soil since soil material type determines propagation.

Comment: Were any bores conducted and tested and at what depth? If so where and what were the results?

Section 4.2.4.2 states, "Surrounding land uses include undeveloped, residential, commercial, and light industrial properties. As shown in Table 4.2.4-1, 337 potentially contaminated sites occur within 200 feet of the N-S Corridor."

Comment: Where are these 337 locations?

Section 4.3.2 is the section entitled "Wild and Scenic Rivers".

Comment: Where is Indian River Lagoon?

Section 4.3.3.2 states, "Streams and waterways communities include rivers, creeks, canals, and other linear waterways. Freshwater rivers and streams cross the E-W Corridor, the N-S Corridor..."

Comment: What about the Indian River Lagoon?

Section 4.3.4.2 Table 4.3.4-2 indicates that the St. Sebastian River is located in St. Lucie County."

Comment: The St. Sebastian River is located in Brevard and Indian River Counties.

Section 4.4.1.2 states, “The N-S Corridor is within the existing FECR Corridor, and passes through numerous incorporated municipalities: Cocoa, Melbourne, Vero Beach, Fort Pierce, Jupiter, Palm Beach Gardens, Riviera Beach, and West Palm Beach. Among these municipalities, West Palm Beach has the highest population (98,795), while Vero Beach has the lowest total population (15,664) (USCB 2011)”.

Comment: What happened to the City of Sebastian? The City has a population of approximately 24,000.

Section 4.4.1.2 states, “Vero Beach’s tourist attractions are an important part of the city’s economy and the greater region known as the “Treasure Coast” (Vero Beach, Florida n.d.). Recreational activities and attractions in Vero Beach including golfing, water sports, fishing, beaches, museums, and nature tours (Visit Florida 2013b). Vero Beach has a land area of 11.4 square miles: its population density is approximately 1,374 persons per square mile (USCB 2013)

Comment: Where are the tourist attractions and importance of the economy for the City of Sebastian?

Comment: Consistency is lacking in the USCB dates, using population in years USCB 2011 but persons per square mile uses USCB 2013.

Section 4.4.2.2 titled “Affected Environment”. It states, “For this analysis, the minority or ‘non-White’ population refers to persons who reported their ethnicity and race as something other than ‘White alone’ during the 2010 Census (USCB 2010a)...and shown in Appendix 4.4.2-A.” Table 4.4.2-1 Summary of the Minority/‘Non-White’ Populations per County shows population and percent for ‘Non-White’.

Comment: There is a large senior base population. Add seniors as an environmental justice. There are impacts to seniors, noise, vibrations and reaction time at crossings and medical transportation.

Section 4.4.2.2 titled “Low Income”. It states, “CEQ’s guidance for environmental justice indicates that low-income populations in an affected area Table 4.4.2-3 Summary of Poverty Data Status in the past 12 months at the State, County, and Census Tract Level within the Project Study Area shows Indian River County’s population for which Poverty is Determined at 134,445 with a population below poverty as 16,984 or 12.6%. In addition, it states that the Median Household Income is \$46,363.

Comment: Senior information needs to be included.

Section 4.4.4 titled Public Health and Safety with sub-section 4.4.4.1 Methodology states, “Highway/rail at-grade crossing information was collected from the FRA Grade Crossings database (FRA n.d.). This database provides spatial crossing information that originates from the National Highway-Rail Crossing Inventory Program.”

Comment: There is no mention of the 7/23/14 Field Diagnostic review of the crossing and proposed improvements.

Section 4.4.4.2 titled Public Safety states, “The N-S Corridor crosses approximately 171 at-grade crossings. Two of these, located in Palm Beach County... Table 4.4.4-1 N-S Corridor At-Grade Crossing Accident Data by County states there were 31 at-grade crossings in Indian River County.

Comment: Where were these incidents, at what street crossings?

Comment: There isn't any mention of reduction of response time with increase of trains. There isn't any mention of reduction of response time with increase in trains at gate crossings.

Comment: There isn't any mention of local police or fire response times or how response time will impact local emergency response time.

The following are additional comments related to the DEIS.

Navigation

What improvements are being taken for the railroad bridge in the City of Sebastian or will a new bridge be built? If a new bridge is planned, when will the new bridge be built and what impacts will the building of the bridge have on the residents in the area of the bridge as well as the City of Sebastian?

Comment: How will the new bridge affect boat traffic?

Noise

Were there noise studies conducted in the City of Sebastian and if completed when? If they were conducted why aren't they included in the appendix? If not why weren't they conducted?

Comment: why were they not completed?

Vibration

Was there vibration studies conducted along the tracks in the City of Sebastian? If so, when and where are the results? If not, why were they not completed?

Comment: Was there vibration studies conducted near residences and historical buildings or landmarks? If not, why?

Hazardous Materials and Solid Waste Disposal

What type of safety measures are in place for the safety of pedestrians and vehicles?

Comment: What preventative measures are in place in the event there is a derailment and/or a spill of hazardous materials/liquids since the lagoon, river and ocean are in the proximity of the railroad tracks?

Threatened and Endangered Species

Comment: What environmental procedures are being taken to protect the scrub jays, tortoises, manatee, and trees within the City of Sebastian since there are conservation areas close to the railroad tracks? AAF did not contact the City to find out where the protected areas are located.

Communities and Demographics

Comment: The map displayed at Indian River State College on November 5, 2014, did not name the City of Sebastian let alone any other City along the railroad tracks in Indian River County. Why?

Economic Conditions

According to an article on the St. Johns Water Management District website entitled, "*The Indian River Lagoon: An estuary of national significance*," states,

"The Indian River Lagoon is a diverse, shallow-water estuary stretching across 40 percent of Florida's east coast. Spanning 156 miles from Ponce de Leon Inlet in Volusia County to the southern boundary of Martin County, the lagoon is an important commercial and recreational fishery and economic resource. The total estimated annual economic value of the lagoon is \$3.7 billion, supporting 15,000 full and part-time jobs and providing recreational opportunities for 11 million people per year.

The people attracted to the lagoon by its features — its vast diversity of marine life, plants and animals; temperate climates; accessibility and direct links to the Atlantic Ocean — have changed those characteristics over the last century and particularly within the last 50 years. Throughout recorded history, there have been fish kills, algal blooms and changes in water quality. The lagoon has had a natural ability to absorb a certain amount of pollutants. However, when overloaded, the lagoon suffers.

Comment: Explain why the City of Sebastian was excluded.

Comment: Explain how the increase in freight trains and high speed passenger trains provide benefits to the City of Sebastian as well as Indian River County and Vero Beach?

Comment: What will happen to the second set of tracks if the high speed passenger train is not profitable and fails?

Comment: Who will pay for the loss in property value with the additional tracks and the increased freight train trips and high speed passenger trips?

Comment: Who will pay for the maintenance of the railroad crossings?

Comment: What does maintenance programs are in place for the track, anti-vibration pads, RR crossing facilities, etc.? How often will the tracks be inspected?

Comment: How many passengers are anticipated for all 32 trips? What is the price of a ticket? What kinds of profit margins are being considered so the high speed train reports a profit? And if this is not profitable, who will be using the tracks?

Public Health and Safety

Comment: What type of safety measure such as quiet zones, quad gates, pedestrian gates, anti-vibration pads, sound walls, etc. were or are considered along the railroad tracks in residential area?

Comment: Due to the hospital and physician office being on the east side of the tracks and the residence on the left, how long will it take for a freight train to pass through a station? A freight train even 1 mile long will block all main intersections in the City of Sebastian which will prevent emergency vehicles from crossing the tracks. Therefore, what are the lengths of the freight trains traveling through the City 20 times a day? Will the trains be 2 miles long?

Comment: How fast will a freight train travel? How fast will the freight train be traveling if 2 miles in length? What are the plans for increased freight service in the future?

Comment: What safety measures are in place for the high speed passenger train if it derails? What will the speed of the high speed passenger train be as it travels through the City of Sebastian?

Cultural Resources

S-18 last paragraph, states that, "The Project will not adversely affect ("use") any public parks, recreation areas, or wildlife refuges. Collectively, these properties are protected under Section 4(f) of the Department of Transportation Act, as are historic properties."

Comment: AAF representatives for the DEIS never attempted to contact local expert historians from the Sebastian Historical Society to discuss historical buildings, landmarks, etc. Instead, information that was provided from all other Southern Counties and cities was used which was their attempt to mask the lack of Indian River County participation. The DEIS is not reflective of the City's cultural heritage information. This is unacceptable.

Comment: It fails to recognize any historic sites in the City of Sebastian. This needs to be addressed.

Comment: The study needs to determine if the vibration of the freight trains and high speed trains will damage historical buildings, landmarks, etc.?

Recreation and other Section 4(f) Resources

S-18 last paragraph, states that, "The Project will not adversely affect ("use") any public parks, recreation areas, or wildlife refuges. Collectively, these properties are protected under Section 4(f) of the Department of Transportation Act, as are historic properties."

Comment: The DEIS fails to recognize any recreation, public park areas or wildlife refuges in the City of Sebastian. This needs to be addressed?

Comment: The DEIS fails to recognize the Indian River Lagoon in the City of Sebastian. This needs to be addressed. (See article in section "Economic Conditions".)

Visual and Scenic Resources

S-19 Visual and Scenic Resources states, "viewsheds along "N-S" Corridor would remain primarily unchanged."

Comment: This area of the document addresses mostly those areas along SR528 while barely noting the railway immediately adjacent to US 1 that runs from Wabasso (in Indian River County) to Roseland Road. It fails to mention the Indian River Lagoon, Riverview Park or Indian River Drive impacts.

Technical review comments on the Draft Transportation and Railroad Crossing Analysis for AAF dated September 2013 by AMEC Consultants

1. The introduction needs to provide information regarding the AAF field review diagnostic on the North-South corridor, mainly the 32 railroad crossings with Indian River County and the 7 crossings within the City of Sebastian which took place on 7/14/2014 with representatives from FRA, FEC, FDOT and the local agencies.

2. The introduction should include a description of the 32 railroad crossings within Indian River County and the local cities of Vero Beach and Sebastian and the safety improvements required at each of the railroad crossings to ensure a safety seal corridor as mentioned by AAF during public workshops and presentations.
3. Existing Rail and Bus System needs to include a list of all existing transit services and providers along the North-South corridor. It should include the transit service within Indian River County and City of Sebastian known as the Go-Line Transit Service which is provided by the Senior Resource Service. It crosses all 7 crossings within the City of Sebastian.
4. Existing Roadway Network – Table 2-2 contains existing street connections to I-95. It should also list all other parallel regional streets such as US 1, Old Dixie Highway and Indian River Drive within Indian River County and the City of Sebastian. In addition, the Table identifies a segment Level of Service (LOS), but does not identify the location of this segment LOS in relation to the railroad crossings or the street segment.
5. Existing Highway Rail Grade Crossings – Table 2-3 provides a summary of total existing street crossings by County. The number of crossings in Indian River County is listed as 30 crossings, but the actual number of rail crossings within Indian River County is 32 crossings per the AAF field diagnostic data list provided by FEC and AAF for the field review completed in July 14, 2014 which identified design improvement plans that are still not available for review.
6. The FEC/AAF Field Diagnostic Report and improvement plans for each of the North-South Corridor crossings within Indian River County and the City of Sebastian needs to be included with this report and the DEIS to allow for public and local agency review comments
7. Section 3 Railroad Crossing Analysis identifies Indian River County. It should include all the existing regional roadways with AADT within Indian River County and City of Sebastian such as Barber Street, Schumann Drive, CR 512 EB, CR 512 WB and Main Street as well as any pedestrian counts at these crossing.

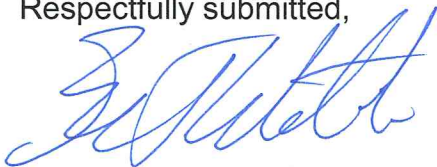
8. As noted in comment 7, the additional regional street crossings within the City of Vero Beach and City of Sebastian should include aerial maps of the these street crossings with AADT per the field diagnostic study conducted on July 14, 2014 and any safety. Street crossing improvements need to be shown on these aerial plans to allow the public and local agencies to review and provide comments on the crossing improvements as it relates to the local streets.
9. Traffic Data – Where are the traffic counts for the streets within the City of Sebastian which include Barber Street, Schumann Drive, CR 512 EB, CR 512 WB and Main Street that were conducted with the field diagnostic study?
10. The Traffic Data identifies a standard 2% truck (heavy vehicle factor) which is low for streets such as CR 512. CR512 is the only regional access into the City of Sebastian and therefore needs to be verified and revised.
11. The DEIS noted traffic signal system improvements needed at street crossings within the North-South Corridor. These improvements need to be identified in this Railroad Crossing Analysis as well as any improvements to the signal timing system. They need to be shown to allow for a technical review from the public and local agencies.
12. The FRA On-site Engineering Field Report – Part 1 dated March 2014 needs to be mentioned and included in the Railroad Crossing Analysis of the DESI document since it identified specific technical safety improvements relating to the crossings and the seal corridor.
13. The identified percentage for the manual turn movement counts need to be justified with actual turn counts to validate these percentages for turn movements within the City of Sebastian intersections.
14. Need to provide the support data or analysis regarding how some of the train data shown on Table 3-1 were determined, such as the “time to clear crossing of 5 sec” and “maximum closure time per hour of 1.7”

15. The Traffic Operational Analysis identifies using the Level of Service (LOS) per ICU method which is not used by FDOT and most local agencies when determining LOS for intersections and street segments. FDOT uses the Highway Capacity Method to determine LOS. Review and correct using the correct method.
16. Add tables to show the Level of Service (LOS) for the intersections and segments within the City of Sebastian at the railroad crossings along Barber Street at US 1, Schumann Drive at US 1, CR 512 EB at US 1, CR 512 WB at US 1 and Main Street at US1. In addition, add a street segment LOS at these street crossings showing the approach queue values.
17. Construction impacts should identify the impacts to the local street crossings and the adjacent intersections of US 1 to the street crossings in the City of Sebastian at US 1 and Barber Street, Schumann Drive, CR 512 EB, CR 512 WB and Main Street.
18. Regional Roadway Network impact needs to include the regional roadway crossings of Barber Street, Schumann Drive, CR 512 EB, CR 512 WB and Main Street and the adjacent parallel regional roadway of US 1 which is the only North-South corridor within the City of Sebastian.
19. Local Vehicular Transportation Impacts need to include the regional roadway crossings of Barber Street, Schumann Drive, CR 512 EB, CR 512 WB and Main Street as well as the adjacent parallel regional roadway of US 1 which is the only North-South corridor within the City of Sebastian.
20. Table 4-1 needs to include all of the street crossings and needs to include the regional roadway crossings at Barber Street, Schumann Drive, CR 512 EB, CR 512 WB and Main Street as well as the adjacent parallel regional roadway of US 1 which is the only North-South corridor within the City of Sebastian.
21. Table 4-2 shows the total number of crossings to be 30 within Indian River County; however the correct number is 32 crossings per the AAF/FEC field diagnostic review study.

22. Summary and reference need to note the AAF field review diagnostic on the North-South corridor, mainly the 32 railroad crossings within Indian River County and the 7 crossings within the City of Sebastian. The AAF field review diagnostic took place on 7/14/2014 with representatives from FRA, FEC, FDOT and the local agencies
23. The summary and report should have addressed pedestrian crossings at all of the street crossings within the corridor and in the City of Sebastian since the City has sidewalk design plans for each of the railroad crossings at Barber Street, Schumann and Main Street. Address this.
24. Barber Street grade crossing, in the City of Sebastian, is not officially listed in the FRA inventory of railroad crossings, so why was this not identified in the DEIS or the Additional Railroad Crossing Analysis?

The City of Sebastian encourages the Federal Railroad Administration, the All Aboard Florida consulting firm, and All Aboard Florida principals Final EIS incorporate provisions that will address the issues outline in the response document and in every other DEIS response document provided by organizations and individuals in the City of Sebastian, Florida.

Respectfully submitted,



Frank Watanabe,
City Engineer



Joe Griffin,
City Manager

cc: File



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November 17, 2014

John Winkle
Federal Railroad Administration
1200 New Jersey Avenue
SE Room W-38-311
Washington, DC 20590
Email: AAF_comments@vhb.com

RE: All Aboard Florida Intercity Passenger Rail Draft Environmental Impact Statement (EIS) and Section 4(f) Evaluation

Dear Mr. Winkle:

Thank you for the opportunity to comment on the All Aboard Florida Intercity Passenger Rail Draft EIS. The Orange County Environmental Protection Division (EPD) has reviewed the EIS, in particular the portion of the rail that will be constructed through unincorporated Orange County (identified as the East-West Corridor) and has the following questions, comments and suggestions:

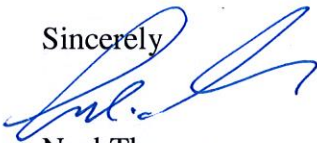
1. The EIS does not expand on the anticipated indirect or secondary surface water and/or wetland impacts that will occur due to the construction of the rail in any of the proposed alternatives. Tables' 5.3.3-1, 5.3.3-2, and 5.3.3-3 should be expanded to include the estimated indirect and secondary impacts that will be realized from the construction of the rail, which will be significant in any of the Alternatives. Although there is a brief discussion of these impacts in Section 5.3.3.3, the narrative only states that indirect effects to remaining wetland areas and the creation of a "new edge" will be "minimal" for Alternative A, and according to the author, the same for Alternatives C and E. What measures, if any, will be taken to minimize indirect and/or secondary impacts? Will the proposed fencing cause additional secondary impacts? There has been no quantification of these impacts, which in our opinion, will be significant.
2. The EIS does not appear to provide any discussion on the proposed mitigation for the direct surface water and/or wetland impacts (and indirect and secondary impacts) that are anticipated from the project. The Orange County Comprehensive Policy recommends that any impacts that occur to surface waters and/or wetlands within Orange County are mitigated for within Orange County.
3. A portion of the rail is proposed through the Econlockhatchee River Protection Area, as codified in Orange County Code, Chapter 15, Article XI. The County adopted these basin wide regulations in 1990, to protect this very unique and diverse ecosystem from development pressures and provide for the future well being of this unique area. In fact, the rail is proposed directly through an area designated as a

critical area, in which more specific regulations apply. These include a river protection zone, that presumes additional crossings of the River and its named tributaries that are co-located with existing crossings to be the least harmful alternative. In addition, aerial crossings of the protection zone shall be encouraged. With that said, EPD recommends Alternative A, which spans the Econlockhatchee River and Little Creek with a 1700-foot-long bridge close to existing crossings already existing for State Road 528.

4. In our opinion, Alternatives C and E do not provide adequate wildlife underpasses, especially at the river crossings; however no details are provided in the EIS. Will these alternatives, in the vicinity of the Econlockhatchee River and its tributaries, include exclusion fencing, lighting, small tubes or tunnels for amphibians, logs or rocks as cover, weirs, shelves, etc.? EPD believes Alternative A is also the best option for safe wildlife passage under the rail and to maintain the most natural wildlife passage corridor.
5. EPD could not determine the source of fill for the project, with particular concern again for the East-West Corridor. Depending on the source, EPD is concerned that the fill may import nuisance and/or exotic species into the Econlockhatchee River Protection Area, in particular, which limits the removal of understory vegetation, to the greatest extent practical, to preserve natural wildlife habitat and prevent the importation of exotic species.
6. Pursuant to Orange County Code Chapter 15, Article X and XI, this project will require a Conservation Area Impact (CAI) permit from Orange County approved by the Board of County Commissioners.

Thank you again for this opportunity to review the All Aboard Florida Intercity Passenger Rail Draft EIS, and if you have any questions or comments, please contact me at 407-836-1451 or via email at Neal.Thomas@ocfl.net.

Sincerely



Neal Thomas
Environmental Program Supervisor

 NET/ERJ:sv

City of Melbourne, Florida
Comments on Draft Environmental Impact Statement for the
All Aboard Florida, Orlando to Miami, Florida Intercity Passenger Rail Project

The City of Melbourne, Florida (the "City") respectfully submits these comments to the Federal Railroad Administration ("FRA") with regard to the Draft Environmental Impact Statement ("DEIS"), dated September 2014 prepared for All Aboard Florida, Orlando to Miami, Florida Intercity Passenger Rail Project (the "Proposed Project"). The Proposed Project's sponsor, All Aboard Florida — Operations LLC ("AAF"). As submitted, the DEIS, a report exceeding 500 pages, provides only a cursory review of impacts created by the AAF project.

The DEIS was prepared to assist the FRA in satisfying its obligations with respect to federal funding of the Proposed Project under the National Environmental Policy Act ("NEPA"), 42 U.S.C. §4321 *et seq.*, and applicable NEPA requirements. Federal law requires an environmental impact statement to (i) disclose and assess the impacts of major federal actions significantly affecting the environment; and (ii) consider the reasonable mitigation measures and alternatives to such actions that would avoid or minimize those impacts. See 42 U.S.C. §4332; 40 C.F.R. §1502.1. The federal procedures require that an environmental impact plan be submitted to the FRA that provides an analysis of environmental impacts (and mitigation) in the following areas: land use, transportation, air quality, noise and vibration, climate change, water resources, navigation, wetlands, natural biological systems, fish and wildlife, social and economic effects, environmental justice communities, visual resources, cultural resources, historic and recreational resources, public health and safety and economic effects in addition to secondary and cumulative impacts and short-term construction impacts. The purpose of the environmental impact statement is to ensure that federal decision-makers understand the short and long-term impacts of their actions, and how such impacts might be addressed, before federal action is taken. For the reasons discussed in detail below, the City believes that the DEIS does not properly identify or address the impacts of the Proposed Project, and fails to provide FRA with the information needed to satisfy its obligations under NEPA.

The City has identified three railroad crossings through the City's downtown area of potentially significant impacts that were not adequately addressed in the DEIS: New Haven Avenue (S.R. 192); Strawbridge Avenue (U.S. 192) and Palmetto Avenue. Each of the three downtown crossings have characteristics that have not been addressed by the DEIS and should be addressed prior to DEIS evaluation of impacts of the Proposed Project. A supplemental DEIS providing data about the three downtown crossings is needed to understand the impact of emerging high speed rail (80-110 mph) on pedestrian traffic at the three downtown crossings.

The downtown area of Melbourne is a business district with a high degree of local pedestrian traffic. Currently there are a significant number of vibrant shops, restaurants and bars as well as an active residential community and government offices within the downtown area. Streets are sometimes closed for special events, allowing

patrons to freely walk the shopping and entertainment district, minimizing the risk of traffic hazards. The FEC railway, the preferred site of the Proposed Project, cuts through this downtown business district at three particular grade crossings. Specifically,

- Grade Crossing at New Haven Avenue (U.S. DOT Crossing #272139H). New Haven Avenue is a state road (S.R. 192), which is located in the heart of downtown Melbourne. The existing FEC crossing divides the town center with shops, entertainment and parking located on both sides of the crossing. The crossing experiences a high degree of pedestrian traffic.
- Grade Crossing at Strawbridge Avenue (U.S. DOT Crossing #272138B). Strawbridge Avenue is a federal highway (U.S. 192), located within the downtown area. Most available free parking serving the downtown area is located along Strawbridge Avenue. Patrons of the downtown shops frequently park on the north side of Strawbridge Avenue and walk through the Strawbridge grade crossing to access the downtown restaurants, bars and shops.
- Grade Crossing at Palmetto Avenue (U.S. DOT Crossing #272137U). Palmetto Avenue is a city street located along the north end of the downtown area. Although characterized as a local city street for purposes of vehicular traffic, the crossing appears to experience an unusually high degree of pedestrian traffic. There is a soup kitchen located to the northwest of the crossing and a common gathering place for homeless located to the southeast of the crossing. As such, the Palmetto crossing appears to be a common location for pedestrians crossing the FEC tracks.

Because the three downtown crossings are located within the center of a City retail business district, the impacts to the environment at these three crossings should be addressed specifically in the DEIS. The DEIS should be rejected as inadequate as failing to properly evaluate the most potentially significant impact areas to the local community: pedestrian traffic and vehicular traffic.

The DEIS Fails to Identify or Evaluate Pedestrian Traffic at Any Crossing.

The DEIS favors use of the FEC railway which runs through a retail business district of the City of Melbourne. As indicated previously, three of the grade crossings of concern to City Council involve a high level of pedestrian traffic. The DEIS altogether fails to identify or evaluate any pedestrian traffic at any grade crossing. Without any data as to the impact on pedestrian traffic, the FRA is not given the necessary information to determine the impact of the Projected Project on the community. Accordingly, the DEIS should be supplemented with accurate information regarding pedestrian traffic at grade crossings.

The DEIS Fails to Identify or Evaluate Vehicular Traffic at the Three Critical Downtown Crossings.

The DEIS presents a cursory review of local vehicular transportation impact by referencing a limited number of grade crossings, and only one grade crossing located within the city limits of the City of Melbourne. The federal rules do not provide for a consolidated evaluation and the high number of crossings does not relieve the applicant of the requirement to evaluate impacts. Limiting the Brevard County analysis into one or two crossings skews the evaluation of impacts that the Proposed Project will have on the community.

Brevard County extends 72 miles (116 km) from north to south. Within Brevard County, the FEC railway includes 55 railway crossings within 42 miles. In reality, grade crossings within Brevard County include major arterial roads as well as less traveled local streets. Some crossings are heavily traveled by pedestrians and others are heavily traveled by vehicles. Each crossing reflects different characteristics and should be evaluated based on the characteristics of that particular crossing.

Impacts at grade crossings are not fungible and should be evaluated based upon actual characterization and impacts at a particular crossing. The DEIS altogether ignores the characteristics of the environment around crossings and offers only a consolidated evaluation. The DEIS offers a traffic study of only one road located within the boundaries of the City of Melbourne: Pineda Causeway (S.R. 404). Notably, Pineda Causeway is not a traditional route of pedestrian traffic and is not similar to the environment of the three downtown crossings referenced above. Selecting only certain roads to evaluate impacts prevents a meaningful analysis of the impact of the Proposed Project for the crossings within communities.

The DEIS Evaluates All Brevard County Vehicular Traffic Based Upon an Inadequate Analysis.

The DEIS presents a cursory review of local vehicular transportation impact by providing a “traffic study” referencing limited grade crossings. That traffic study claims to identify the wait times at grade crossings and is based upon the projected speeds of the trains through the selected crossings. That analysis is flawed because the underlying information upon is flawed.

The DEIS evaluates rail operations summarily on a county-wide basis. The county-wide evaluation utilizes an average train speed for Brevard County of 28.5 mph. That average train speed is based on identified maximum design speeds. To the extent the maximum design speeds are over-estimated, the impacts of wait times are under-estimated. For example, the DEIS identifies the maximum design speed at two of the downtown crossings to be 110 mph and the DEIS bases its entire Brevard County traffic study average train speed on that 110 mph speed. Yet representatives of AAF have stated verbally that the safety conditions within the City will not allow for a

speed of more than 79 mph.¹ Such an adjustment in the speed of the train affects the impact analysis of wait times. Likewise, the ripple effect of the longer queues predicted on local intersections — on the ability of police, fire and EMS vehicles to respond to emergencies; on traffic safety; or on economic conditions in affected business districts — is not addressed in the DEIS. And nothing is said in the DEIS or its appendices about how such impacts could be mitigated or avoided. The City may indeed prefer longer wait times if speeds are reduced but without accurate data, neither the City nor the federal agency cannot make an informed decision. The county-wide average train speed listed in the DEIS does not provide the insight needed to evaluate accurately the existing maximum delay per hour at crossings within the City of Melbourne and particularly with respect to each of the three downtown crossings referenced above.

Furthermore, the DEIS presumes only 16 round trips per day and evaluates wait times based on this presumption. There is nothing in the DEIS to indicate that 16 round trips per day would meet ridership demand over the long term, nor that 16 round trips per day was properly selected for the total impacts analysis in the document.

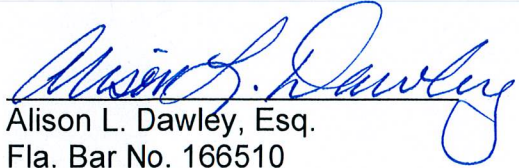
The information in the DEIS does not reflect information provided directly to the City by AAF. To the extent the speed is different than that set forth in the DEIS, then the DEIS calculations of wait times and environmental impacts is miscalculated and misleading. Furthermore, consolidating the county figures skews results. Characterization of impacts summarily by county simply waters down the statistics preventing a meaningful analysis of the impact of the Proposed Project.

The DEIS, as submitted, is inadequate. The DEIS evaluates impacts with a broad brush, either characterizing statistics in terms of the entire county or selecting only certain crossings for evaluation. Each crossing should be evaluated based on its own accurate characteristics rather than the average characteristics of the county. As drafted, the DEIS does not allow federal decision-makers to understand the short and long-term impacts of their actions, and how such impacts might be addressed, before federal action is taken. Accordingly, the DEIS should be supplemented with an analysis of alternative train speeds at each crossing.

Having failed to identify the impacts of emerging high speed rail at these critical grade crossings, the DEIS precludes a meaningful analysis of the Proposed Project. The City, therefore, requests that no further action be taken by the FRA to advance the Proposed Project, unless and until a supplemental DEIS is prepared, and the subsequent requirements of NEPA are fully satisfied. See 40 C.F.R. §1502.9(c); FRA NEPA Procedures §13(e), 64 Fed. Reg. 28554. The FRA has insufficient information to evaluate to the potentially significant impacts of the Proposed Project. As such, the FRA should require AAF to submit a supplement to the DEIS that properly identifies and evaluates the impacts to the three downtown crossings.

¹ Conversations with Rusty Roberts, Vice President of Corporate Development for Florida East Coast Industries and Christopher Bonanti, Director of Environmental Planning of AAF, on November 6, 2014 and November 12, 2014.

WHEREFORE, in consideration of the foregoing, the City respectfully submits that the Draft Environment Impact Statement dated September 2014 has failed to provide the required evaluation and analysis of impacts to the community. Consequently, the City respectfully requests that the Federal Railroad Administration deny the request for a finding of no significant impact in relation to the Draft Environmental Impact Statement dated September 2014 and that the Federal Railroad Administration require that the applicant submit a supplemental environmental impact statement fully analyzing pedestrian and vehicular traffic at each grade crossing within the City of Melbourne.



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Introduction

The United States Coast Guard (USCG) scheduled three public meetings for citizens to provide oral and written comments for the current and future operations of the Florida East Coast Railroad bridges, including the bridge across the Loxahatchee River. Specific interests included the current and future impact to navigation due to bridge closings for existing and future rail traffic.

As part of the solicitation of public comments, George Gentile, Chairman of the Jupiter Inlet District (JID) made an oral presentation at the meeting of November 14, expressing JID's concerns over the Loxahatchee River RR bridge closings due to rail traffic. This report was prepared in response to USCG Docket No. 2014 – 0937, requiring written materials be submitted not later than December 1, 2014. As stated by the USCG, the basis and purpose of the meetings was to collect comments, along with other information, "to establish and preserve the reasonable needs of navigation on these three rivers."

Jupiter Inlet District

The Jupiter Inlet District (JID) is an independent special taxing district established by the Florida Legislature, encompassing some 92 square miles in area. Its boundaries are the Palm Beach/Martin County line to the north, the Atlantic Ocean to the east, the section line separating Townships 41 and 42 to the south and Pratt Whitney Road/Beeline Highway to the west. The JID was established in 1921, making it the oldest local government in northern Palm Beach County.

The Florida Legislature set forth several policy objectives which the JID Board must balance in its decision-making process:

- The maintenance and preservation of the Jupiter Inlet with a specific emphasis on the navigability of the Jupiter Inlet.
- The maintenance and preservation of the Loxahatchee River and its tributaries.

The maintenance of these water bodies is "for the preservation of the public health, for the public good, and for the use of the public." Because the public use of the Loxahatchee River requires the ability of water – borne vessels to pass without unreasonable obstruction, the JID Board of Commissioners has reviewed and continues to monitor the published plans of AAF.

All Aboard Florida

The most significant impact to future navigation is All Aboard Florida (AAF) Passenger Rail Project. AAF proposes intercity passenger rail service between Orlando and Miami, with station stops in Orlando, West Palm Beach, Ft. Lauderdale and Miami. The proposed weekday schedule of 32 trains crossing the Loxahatchee River will increase closures from 10, in 2013, to 42 by 2016 (Treasure Coast Regional Planning Council, 2014). The FECR bridge crossing the river has a vertical clearance of only 4 feet above mean high water, along with a horizontal clearance of 40 feet, thus placing significant limitations on

boaters when it is in the down position. The Draft Environmental Impact Statement (DEIS) submitted by the Federal Highway Administration (FRA) suggests the average weekday bridge closure for the Loxahatchee River Bridge will increase to 8.6 hours, from 3.6 hours in 2013. As significant an increase as this may be, it fails to take into account the continued increase in boat traffic the Jupiter Inlet and Loxahatchee River have seen in recent years.

Navigational Impacts

According to the DEIS, the additional bridge closures will result in an average queue length of 10 vessels or fewer (TCRPC, 2014). Vessels with heights/air draft greater than the vertical clearance under the bridge will have to queue up in a holding area until the bridge is opened. Boats waiting for the bridge to open must also contend with strong tidal currents, estimated at 7 to 8 knots. This can result in difficulty avoiding being set onto the bridge, the shore, or each other.

A review of the literature on the subject of user delay for moveable bridges suggests the following methodology/approach (Dehghani et al., 1991):

1. Calculate vessel queue;
2. Determine bridge opening/closing cycle
3. Calculate vessel delay on the basis of bridge cycle length and time required to clear the queue.

The vessel queue is determined by the bridge cycle length, currently averaging 20:08 minutes per opening, per train (Taylor Engineering, Inc., 2014). A bridge cycle length of 20 minutes forces 12 and 45 vessels to queue up, for the average hr. and maximum hr., respectively before the next bridge opening.

Analysis by Taylor Engineering indicated that the average vessel service flow rate (duration of bridge opening divided by number of vessels that pass underneath) was 3.23 min per vessel. Vessel delay is a function of time waiting for the bridge to open and the time spent clearing the queue. Assuming vessels arrive randomly at the bridge, the average vessel delay as a result of the bridge cycle would be one – half of the cycle length, or, at present, 10 minutes. Total vessel delay for the average hr. and maximum, or peak hour, is 329 and 3,524 minutes, respectively (see Table 1).

Although AAF proposes to reduce the average bridge cycle length from 20 minutes for the “No - Action Alternative” to 12 minutes “With Project,” the data and analysis contained in the DEIS provides little in the way of input and assumptions as to how AAF arrived at the eight minute reduction in cycle length.

Economic Analysis and Impacts

Unobstructed accessibility to the Loxahatchee River and Jupiter Inlet results in a tremendous economic impact to the Jupiter – Tequesta area, both on property values and the marine services and retail industries. The importance of this type of economic activity is essential to the entire state of Florida and is well documented. The Florida Oceans and Coastal Council reported that the state’s coastal counties contribute about 79 percent of the state’s economic productivity (Goward, 2014).

Rail bridge closures deter waterway use and have a negative effect on the economies of surrounding communities. In a study conducted by the Florida Inland Navigation District (FIND), draft restrictions of

three feet MLW showed a reduction of 332.6 million in business volume and 3,843 jobs, compared to "existing conditions" (G.E.C., Inc., 1999), while an increase in draft restrictions of 10 feet MLW showed an increase of 103.3 million in business volume and 1,212 jobs, compared to "existing conditions" (G.E.C., Inc., 1999). These findings take on added significance when compared with the results of Taylor Engineering's "Loxahatchee River Railroad Bridge Boat Count Project," which shows a 41 % increase in the number of vessels traversing the Loxahatchee River bridge with an increase in vertical clearance of three feet.

The FIND study also demonstrates the impact of accessible waterways on residential property, commercial property, and boat slips. The impact of the waterways on property values, as shown in Table 2, was estimated by comparing values of properties located on waterways to those (that have varying vessel draft restrictions) and those that have no access to the waterways (G.E.C., Inc., 1999).

Structural Integrity of Bridge

The JID Board of Commissioners has solicited the advice of structural engineers, Bridge Design Associates (BDA), regarding the structural integrity of the Loxahatchee River Bridge.

Based on their initial observations, it is clear that, despite being repaired several times, the bridge is in need of structural steel rehabilitation. There are holes from corrosion in steel beams of the moveable spans. BDA also observed a significant amount of coating failure and corrosion on the beam bottoms near the water.

According to BDA, a thorough inspection of the main support beams should be required which entail measurements of the member thickness and removal of the scaling rust, and possibly some ultrasonic or dye tests to check for fractures in the steel and connection.

In at least one instance, the JID removed a large piece of metal that fell from the bridge and caused an obstruction of the waterway. Because the object was not visible from the surface, several boats struck it, causing minor damage. Requests to the FECR apparently went unheeded (Goward, 2014). Mechanical failures of the bridge mechanism (e.g., faulty locking system or signal system) have also resulted in extended waterway closures

All Aboard Florida DEIS

As noted by the the Treasure Coast Regional Planning Council, the DEIS contains insufficient data in several key areas to allow for a thorough analysis of impacts at the local and regional level (TCRPC, 2014). The effect of Positive Train Control on average bridge cycle length requires more detailed explanation and the vessel data for the Loxahatchee River is woefully inadequate. According to the DEIS, vessels were counted over a three week period, December 31, 2013 to January 21, 2014. In contrast, the JID vessel counts extend from mid – January, 2014 through September, 2014, with data continuing to be collected (Taylor Engineering, Inc., 2014). According to the DEIS, the AAF project proposes several mitigation measures but they appear insufficient to offset project – related impacts to navigation.

Coast Guard Authority and Responsibilities

The Coast Guard Bridge Program has the authority to approve the location and plans of all new bridges, as well as modifications of existing bridges in or over the navigable waters of the United States. In accordance with 33 CFR 116.01, "All bridges are obstructions to navigation and are tolerated only as long as they serve the needs of land transportation, while allowing the reasonable needs of navigation" (USCG, 2012). Further, pursuant to the Rivers and Harbors Act, "No bridge shall at any time unreasonably obstruct the free navigation of any navigable waterway of the United States" (USCG, 2012).

The factors that the Coast Guard considers when making a determination based on the reasonable needs of navigation include (but are not limited to):

- Existing recreational users;
- Vessel trip frequency;
- Impacts from bridge approaches based on associated navigational clearances;
- Waterway depth and elevation fluctuations (range of tides, average high water elevation, etc.);
- Current speed and direction;
- Vessel air draft.

Of significance to AAF, existing, legally permitted structures may "become unreasonably obstructed" where waterway use has changed, including development along the waterway and riparian dependent economic growth. It should also be noted that "no distinction shall be made between commercial and recreational vessels in the administration and enforcement of the law" (USCG, 2012).

Conclusions and Recommendations

Conclusions

1. After the AAF becomes operational, the number of boats queuing at the Loxahatchee River Bridge could create additional hazards for vessels awaiting bridge openings.
2. Unobstructed accessibility to the Loxahatchee River and Jupiter Inlet results in a tremendous economic impact to the Jupiter – Tequesta area, both on property values and the marine services and retail industries. Increased rail bridge closures will deter waterway use and have a negative effect on the economies of surrounding communities.
3. The Coast Guard Bridge Program has the authority to approve the location and plans of all new bridges, as well as modifications of existing bridges in or over the navigable waters of the United States. In accordance with 33 CFR 116.01, "All bridges are obstructions to navigation and are tolerated only as long as they serve the needs of land transportation, while allowing the reasonable needs of navigation" (USCG, 2012). Further, pursuant to the Rivers and Harbors Act, "No bridge shall at any time

unreasonably obstruct the free navigation of any navigable waterway of the United States" (USCG, 2012).

Recommendations

1. An updated marine navigational study should be conducted, utilizing more accurate data related to boater traffic and access, as well as addressing safety issues resulting from the queuing of vessels awaiting bridge openings.
2. The final EIS should consider bridge improvements to create greater vertical and horizontal clearance for the Loxahatchee River RR Bridge to enable bi - directional traffic, access for more vessels during each bridge closure cycle, and mechanical improvements to assure the structural integrity of the bridge.

REFERENCES

Treasure Coast Regional Planning Council, "Memorandum to Council: All Aboard Florida Draft Environmental Impact Statement," November 21, 2014.

U.S. Department of Transportation Federal Highway Administration, "Draft Environmental Impact Statement," September 2014

Taylor Engineering, Inc., "Loxahatchee River Railroad Bridge Boat Count Project," November 2014.

Dehghani et al., "Estimation of Delays to Boats and Vehicular Traffic Caused by Moveable Bridge Analysis: An Empirical Analysis," 1991.

Dana Goward, "St. Lucie River and Loxahatchee River bridge comments," November 2014.

G.E.C., Inc., "Economic Analysis of the District's Waterways in Palm Beach County," October 1999.

United States Coast Guard, "United States Bridge Program: Reasonable Needs of Navigation White Paper," October 2012.

TABLE 1

Moveable Bridge Openings: Estimate of Boat Delay

<u>Total boats/day</u>	<u>Bridge opening cycle</u>	<u>Boats per cycle</u>	<u>Step 1</u>	<u>Queue delay</u>	<u>Boats per cycle</u>	<u>Minutes of delay</u>
Avg/hr	10	12	123	19.92	206	329
Max/hr	10	45	447	72.14	3,078	3,524

TABLE 2

Characteristics of Residential Properties
Adjacent to Waterways

<u>Type of Property</u>	<u>Number of Parcels</u>	<u>Avg. Total Appraised Value</u>	<u>Avg. Bldg. Size SF</u>
Intracoastal Waterway	1,668	\$897,166	5,177
Connecting Canal	2,688	\$436,744	3,852
Other Water Body	610	\$172,064	2,737
Dry Parcel	8,185	\$194,851	2,521
TOTAL	13,151	\$1,700,825	14,287
AVERAGE	3,288	\$425,206	3,572

The Board of County Commissioners of Broward County, Florida

Public Comments on the Draft Environmental Impact Statement for the All Aboard Florida, Orlando to Miami, Intercity Passenger Rail Project

Mr. John Winkle, Federal Railroad Administration
1200 New Jersey Avenue, SE Room W38-311
Washington, DC 20590

The Board of County Commissioners of Broward County, Florida ("Board"), respectfully submits these comments to the Federal Railroad Administration ("FRA") with regard to the Draft Environmental Impact Statement ("DEIS") for the proposed All Aboard Florida, Orlando to Miami, Intercity Passenger Rail Project ("AAF Project"). The Project sponsor has applied for 1.875 billion dollars in federal funds through the Railroad Rehabilitation and Improvement Financing ("RRIF") program administered by the FRA. Potential expenditure of these federal funds characterizes the Project as a "major federal action under the National Environmental Policy Act of 1969, 42 United States Code ("U.S.C.") Section 4321, *et seq.*, ("NEPA") and applicable regulations adopted by the Council on Environmental Quality ("CEQ") and the FRA.

NEPA and the CEQ regulations impose obligations on the FRA to evaluate the Project's environmental consequences and to produce a detailed statement that discloses and assess, to the fullest extent possible: the environmental impacts of the Project; any adverse environmental impacts which cannot be avoided if the Project is implemented; alternatives to the Project; the relationship between local short-term uses of the environment and the maintenance and enhancement of long-term productivity; and any irreversible and irretrievable commitments of resources which would be involved if the Project is implemented. *See* 42 U.S.C. Section 4332 and 40 C.F.R. Section 1502.1. In producing this detailed statement, the FRA is also required to consult with and obtain the comments of federal, state, and local agencies, as well as the public. *Id.* Accordingly, these comments on the DEIS are those of a local governmental agency affected by and entitled to provide comments on the DEIS that the FRA should consider in fulfilling its consultation requirement before it takes action on the Project.

The DEIS is also intended to satisfy two related requirements for consideration the impacts of federal agency actions on historic resources and certain public lands; Section 106 of the

National Historic Preservation Act ("Section 106"); and 49 U.S.C. Section 303(c) and 23 Code of Federal Regulations ("C.F.R.") Section 774 (known as a "Section 4(f) Evaluation" from its promulgation as Section 4(f) of the Department of Transportation Act of 1966, Public Law 89-670).

GENERAL COMMENTS

The Broward County Board of County Commissioners has expressed general enthusiasm for a commuter rail project and its potential benefits for citizens and the region's continued economic development; however, the size of this project has unclear impacts to the built and natural environments--the effects of which will not be known or felt until the project is completed.

Broward County's staff and legal department have engaged in ongoing dialogue with All Aboard Florida (AAF)/Florida East Coast Railway (FECR) about this project and will continue doing so. We have described through a series of in-person meetings and documents, that the County does not feel that an EIS "finding of no significant impact" is appropriate or reflective of the impacts to the built and natural environment that the region will experience should this project be approved. Broward County is home to 1.8 million residents, 13.4 million domestic and international visitors, annually, one of the largest seaports in the nation, a bustling, recently expanded international airport, and is confined by the Atlantic Ocean to the east and the Everglades Conservation area to the west. As such, projects of All Aboard Florida's magnitude must be viewed comprehensively: including, but not limited to, impacts on traffic patterns, public safety and emergency response, the marine industry, aged infrastructure, and the natural environment.

QUIET ZONES, PUBLIC SAFETY AT CROSSING AND ALONG CORRIDOR

Quiet Zones *are an integral component of the project.* It is our understanding that All Aboard Florida, using both their own funds, and supplemental dollars provided by the Broward Metropolitan Planning Organization, will be constructing a series of railroad crossing safety improvements, sufficient to implement a continuous quiet zone throughout Broward County. The process for approving a Quiet Zone does not require that each individual roadway crossing within the Quiet Zone receive safety upgrades, but simply that safety measures be installed to

reduce the hazard probability to a certain level for the entire Quiet Zone. Therefore, it is important to note that safety improvements are not being installed at each existing railroad crossing. Due to the significant increase in the number of trains operating in an urban corridor, we believe All Aboard Florida should commit to providing a higher level of safety infrastructure than the minimum required for only establishing the Quiet Zone. Furthermore, All Aboard Florida should perform a hazard analysis to determine the level of mitigation that is required or appropriate.

From a policy perspective, local governments and tax payers should not have to pay for such improvements. We understand that AAF does not believe they are required to fund quiet zones. However, the laying of additional track is a decision by private development and a private company's financial interests. The railroad experiences a *significant benefit* in reduced liability when quiet zones are put in place. As such, just as the railroad invests in property and technology for the benefit of the railroad, **it should invest in the safety and comfort of impacted residents.**

In addition to the issue of Quiet Zones, the County is concerned about corridor safety in a broader sense, not just at the roadway crossings, but along the entire corridor as a whole. Unlike the Tri-Rail corridor which is buffered to a large degree by vacant right-of-way, the AAF corridor will travel along highly-urbanized and well-developed business, industrial and residential areas. Because of this, there is a much higher potential for vehicular, pedestrian and bicycle conflicts along this corridor, not just at the crossing points, but along much of the railroad corridor itself. During the field safety audit that took place several months ago, children were actually identified playing on the tracks and within the railroad right-of-way. Many crossings are also situated within downtown activity centers with high amounts of pedestrians and bicyclists. As we all know, the proposed commuter train will operate more frequently and at much higher speeds than the current freight service, and All Aboard Florida must work closely with all local governments to develop and fund measures for all aspects of safety along the corridor in addition to safety features at the roadway crossing points.

Continuing with safety, the types of technologies that are needed for locating the commuter train along its route; detecting its approach to specific crossings; and detecting track obstacles, hazards and other types of intrusions along the railway corridor must be made collaboratively with the local governments that may ultimately contribute to their capital and maintenance

costs. It is important that these systems be developed to be adaptable and compatible with at-grade flashing warning systems and traffic signal communication systems.

INADEQUATE ASSESSMENT OF DIRECT, SECONDARY AND CUMULATIVE TRAFFIC IMPACTS

Although the actual schedules are not yet known, an estimated, 32 passenger trains a day will be running along the FEC tracks in Broward County. On average, traffic along each corridor will be stopped about three times per hour at each location. In addition to the actual time that the railroad crossing arms are down to allow the train to pass, it takes approximately eight minutes on average for the nearby traffic signals to adjust and resynchronize themselves to the state prior to the train's arrival; and it may take several more minutes for the traffic to actually begin operating in a synchronized fashion. With three crossings per hour, traffic in the downtown areas will be significantly impacted for about fifty-percent of each rush-hour period. Based on our review of the transportation impact documents submitted on behalf of the project, it appears that the direct and secondary impacts on the surrounding transportation network were not adequately evaluated.

Under NEPA the Federal Railroad Administration (FRA) is obligated to examine not only the direct and immediate impacts of the proposed project, but also secondary and cumulative impacts, in combination with those of other reasonably foreseeable actions, activities or developments. It is clear that the total transportation analysis performed for the Broward County AAF crossings fails to not only address the immediate and direct transportation impacts in a comprehensive manner, but also completely ignores secondary and cumulative impacts. Moreover, the overall transportation analysis is unsupported by adequate traffic characteristics data or actual simulation modeling.

Following are some of the general deficiencies in the analysis:

- The number of intersection crossing points analyzed was inadequate relative to the total number of crossings throughout the county
- Only the PM peak hour was analyzed
- Only the immediate east/west roadway segment was analyzed; there was no further evaluation of adjacent north/south roadway segments or intersections
- Train crossing times were likely underestimated based on assuming maximum train operating speeds through the crossings

- There was little or no analytical distinction made between freight train and passenger train operations, although the two operate with distinctly different characteristics
- The traffic analysis does not follow any professionally-accepted rationale or methodology for assessing traffic impacts
- The comparative analysis is highly flawed; the impacts of normal traffic conditions with freight movements (baseline) should have been compared against normal traffic conditions with freight movements, plus passenger train operations. The analysis used a "weighted average" approach that misrepresented the actual incremental impacts of the additional passenger service
- There is no discussion explaining what the tabular analysis results actually mean in terms of real traffic impacts.

To further illustrate, the traffic analysis performed for all of Broward County includes only two locations: Hillsboro Boulevard and Broward Boulevard, and only one time-of-day analysis period (PM peak). The analysis performed assumes one freight train crossing and one passenger train crossing during the pm peak hour. The level-of-service methodology assumes no delay occurs for 53 signal cycles during each hour (which in itself is highly inaccurate as the average cycle length is 160 seconds, or 22.5 cycles per hour), and then assumes one signal cycle of freight train delay and one cycle of passenger train delay. The overall delay impact is calculated by arithmetically weighting the one freight-train delay value with the one passenger-train delay value applied against 53 cycles of zero delay.

This is a meaningless analysis relative to how actual signal operations works in conjunction with railroad crossings. The starting normal level-of-service (LOS) at either of these two crossings during the pm peak is actually closer to LOS E, not LOS A. With each railroad crossing, the baseline initial delay of LOS E degrades to a severe LOS F during the train crossing interval and the adjacent traffic signals dwell in pre-emption and become unsynchronized. As these signals become unsynchronized, secondary delays propagate further downstream to other intersections and roadway segments in all directions, expanding the LOS F condition. When the train finally departs the crossing, and the traffic signals exit out of their pre-emption state, they are still unsynchronized, and must transition back into a synchronized state with the other nearby traffic signals. This transition period typically requires three to four signal cycles, or approximately eight to eleven minutes. During this transition period, the level-of-service remains at LOS F, as

does the downstream segments. Only after the full transition period when all the signals are resynchronized, does the system start to recover back to its original level-of-service, which was LOS E (not LOS A). It may take an additional two cycles for the initial LOS to be re-established throughout the adjacent network. Therefore, one train crossing does not result in one cycle of LOS F conditions, but more likely 16-19 minutes of LOS F conditions; two crossings per hour would result in 32-38 minutes of LOS F conditions. ***This is a significant impact,*** the scale of which will occur not just at these two locations, but at all other arterial crossings along the FEC corridor.

Interruptions will have real, quantifiable impacts in terms of delays, longer commute times, lost labor production hours, longer emergency response times, *increased carbon emissions*¹, and higher fuel costs. These cumulative impacts have not been properly identified or quantified in the environmental impact document, but they represent a significant impact to the environment and economy. Appropriately comprehensive studies and analyses must be included in the final environmental documents. In addition, strategies, additional funding, and resources to mitigate these concerns, must also be addressed.

NO ASSESSMENT PROVIDED FOR THE PROPOSED CROSSING CLOSURE AT SW 2 STREET (FORT LAUDERDALE)

The EIS documents do not address one of the most potentially significant transportation impacts in Broward County, which is the closure of SW 2 Street crossing in downtown Fort Lauderdale. This segment of SW 2 Street is an important east/west collector roadway that helps reduce the severity and duration of peak hour traffic congestion on Broward Boulevard by providing a parallel east/west route for trips in and out of the downtown. In addition to providing supplemental capacity for commuters, it is a secondary route for emergency vehicles and a potential alternate route for evacuating the downtown in the event of a major incident. The SW/SE 2 Street corridor is also expected to be heavily relied upon to accommodate future traffic as the downtown urban core further develops. With this crossing closed, more trips will be diverted to the already over-capacity segments of SE 3 Avenue and Andrews Avenue in order to access Broward Boulevard.

¹ The EIS findings indicate that the project will be in furtherance of Broward County's air quality goals and reduce airborne pollutants by reducing emissions and greenhouse gases related to vehicles.

Of additional concern is the impact such a closure would have on the Broward County Governmental Center East's operations and access to parking for the hundreds of employees and the public (the Governmental Center's public parking facility is located adjacent to, but the east of, the SW 2nd Street crossing). No analysis of the potential deleterious impacts to the economic viability of the Himmarshee Village and Arts District was presented. The Broward Center for Performing Arts, Museum of Discovery and Science, as well as numerous restaurants and businesses are located to the west of the SW 2nd Street crossing, but heavily dependent upon patrons' access to the public parking garage to the east of the SW 2nd Street Crossing. Further, in numerous meetings and discussions of the project with All Aboard Florida and the City of Fort Lauderdale there was no indication that such a closure was contemplated.

It is therefore imperative that more studies be undertaken to carefully evaluate the potential traffic, socioeconomic, and public safety impacts associated with this closure.

FLORIDA EAST COAST RAILWAY LICENSING AGREEMENTS

Currently, the at-grade roadway crossing agreements between FEC and Broward County require all or a substantial portion of capital and maintenance costs associated with the crossing be paid by taxpayer dollars, and not the railroad. Agreements with other governmental jurisdictions along the corridor have been reviewed and typically include taxpayer dollars paying for 50% of the railroad's flashing warning systems in immediate proximity to the tracks, as well as all inspection costs incurred by railroad. With the increase in capital investment and new equipment associated with the double-tracking required for All Aboard Florida, the level of inspection and maintenance costs to be paid by the taxpayers will also increase significantly. Agreements between governments and All Aboard Florida must be restructured to make these inspection and maintenance costs more equitable for the general taxpayers.

ADDITIONAL TRAFFIC SYSTEM MAINTENANCE COSTS

The double-tracking to allow for increase in the speed and frequency of train crossings will introduce new geometric conditions and operational scenarios that did not exist previously. All Aboard Florida is only planning to address its flashing warning equipment and any impacted traffic signals as part of its *initial* double-tracking reconstruction. After construction, Broward

County will be required to maintain traffic control signing and pavement marking associated with the new configuration, or any additional traffic signal modifications, adjustments or maintenance that may be required. Under the current maintenance agreement, all of these maintenance and operational components are 100% the responsibility of Broward County, thus paid with taxpayer dollars. We believe that these agreements must be restructured to equitably distribute continuing maintenance costs.

Adaptation

Furthermore, the project should better document how it accounts for adaptation that will be required as a result of sea level rise. This is significant to local governments which have agreements with Florida East Coast Rail. Specifically, Broward County has agreements with FECR requiring that taxpayers pay for capital and maintenance on areas of the track that intersect with county roadways—meaning every time new track needs to be laid or equipment adjustments are needed to accommodate environmental mitigations—***taxpayers are on the hook***. Double-tracking and initiating passenger rail service on the FEC corridor adds unexpected financial burdens on local governments. As costs related to upgrading and maintaining the rail line escalates, government is required to weigh other county priorities against railroad contractual obligations entered into many decades ago, under completely different circumstances.

Bridges

Broward County has been contacted by concerned members of the marine industry since the project's inception. Bridge crossings, especially at the New River, must be upgraded and maintained to ensure (1) the least impact to boaters and (2) safety of residents.

Emergency Response and Facilities

Then-Commissioner Suzanne Gunzburger, Hollywood (District 6) submitted a formal request for specifics related to public safety and emergency response which is included in the Finding of No Significant Impact (FONSI), page 34. The response does not address the question sufficiently; we would respectfully request that All Aboard Florida explain how it plans to mitigate impacts to emergency responders and personal vehicles seeking access to trauma and emergency services. The original question posed was, "With only at-grade crossings throughout Broward County, the frequency of those crossings being closed to vehicles. . . for train traffic will surely delay timely access to trauma and emergency care."

Environmental Concerns

The FONSI indicates that the project will be in furtherance of Broward County's air quality goals and reduce airborne pollutants by reducing emissions and greenhouse gases related to vehicles. Has there been an air quality/engineering study to demonstrate the asserted positive impacts to air pollution? What offsets exist resulting from increased traffic congestion and vehicular idling at railroad crossings as a result of the project?

What mitigations are expected for the wetlands identified at milepost 338.5 in Broward County at the South Fork, New River?

While the FONSI assumes there will be no Public Health and Safety impacts (Section K, 27-42), on what evidence was this findings based? No traffic modeling was completed. Contamination risk is always a concern along a rail corridor and is likely; the idea that there would be "no" or "very low" potential for contamination impacts is inaccurate and does not conform to typical engineering assumptions. Site location data provided was "limited"; more substantial data is required prior to asserting a "low risk". Affected sites and sampling should have been more widespread.

With respect to Construction Impacts, the explanation provided that "all construction impacts cannot be estimated at this time" does not accurately reflect what could have been placed into consideration had stakeholders been engaged. Expected impacts that should be addressed are as follows:

- The vertical height and slope of the tracks will be altered;
- Impact on the vertical grade;
- Drainage;
- Longer transition sections/slopes of the pavement to connect into the existing elevations;
- Potential need for dewatering; if required, the County must approve, based on an engineering plan specific to contamination.

Floodplain Maps

The County adopted floodplain maps on August 18, 2014. Such maps were not used to develop the Draft EIS and they show several areas of the All Aboard Florida project, specifically within

Fort Lauderdale, to now be within a floodplain. We would respectfully request an amendment to reflect the appropriate flood maps and also document the plan for mitigating flooding risk. What are the mitigating strategies for the current flood plain map with respect to infrastructure upgrades and construction? How will an adverse condition affect the surrounding area, specifically home owners and traffic flow?

Hazardous Waste

Trains carrying hazardous materials must be immediately removed from the tracks if, for any reason, there is a malfunction or breakdown. Local communities have extensive emergency management responsibilities; and to date, we are unaware of any coordination with affected local governments regarding transportation of hazardous wastes along the corridor.

Parking

The proposed project does not adequately address parking demands for the Fort Lauderdale Station and asserts that the municipalities consulted felt existing parking was adequate to meet the demands of both retail and rail passengers. Broward County strongly disagrees, especially in light of the revelation that access to the public parking garage directly across Broward Boulevard from the Fort Lauderdale Station may be severely hampered by the closure of the street acting as its entrance (SW 2nd Street). The FONSI identifies parking projections on page 25; however, there is no mention of how these figures were produced and what assumptions were used for ridership. Further, the County would like to be consulted prior to the final EIS with respect to the parking needs analysis.

Preliminary Hazard Analysis

Elements of the Draft EIS make reference to risk and hazard assessments that appear to have originated from a hazard analysis document. Was a formal Preliminary Hazard Analysis completed? If so, has it been available to the public? If not, a copy of such analysis should be disseminated to stakeholders prior to project approval.

SECTION 106 AND SECTION 4(F) REVIEW

The DEIS does not meet the requirements of a Section 106 consultation, as the Board and Broward County staff were not invited to participate in the development of its description of impacts on historic resources within Broward County. The purpose of Section 106 consultation

is for Federal agencies to consider the effects of the Project on historic sites that are on, or eligible for, the National Register of Historic Places (NRHP). The DEIS does not meet the requirements of a Section 4(f) review of the Project as it does not: (1) provide sufficient information to ensure that the Project avoids the use of historic sites, (2) describe the evaluation of prudent and feasible alternatives to avoid such a use, or (3) explain how the Project and the FRA have used all possible planning tools to minimize harm to historic sites.

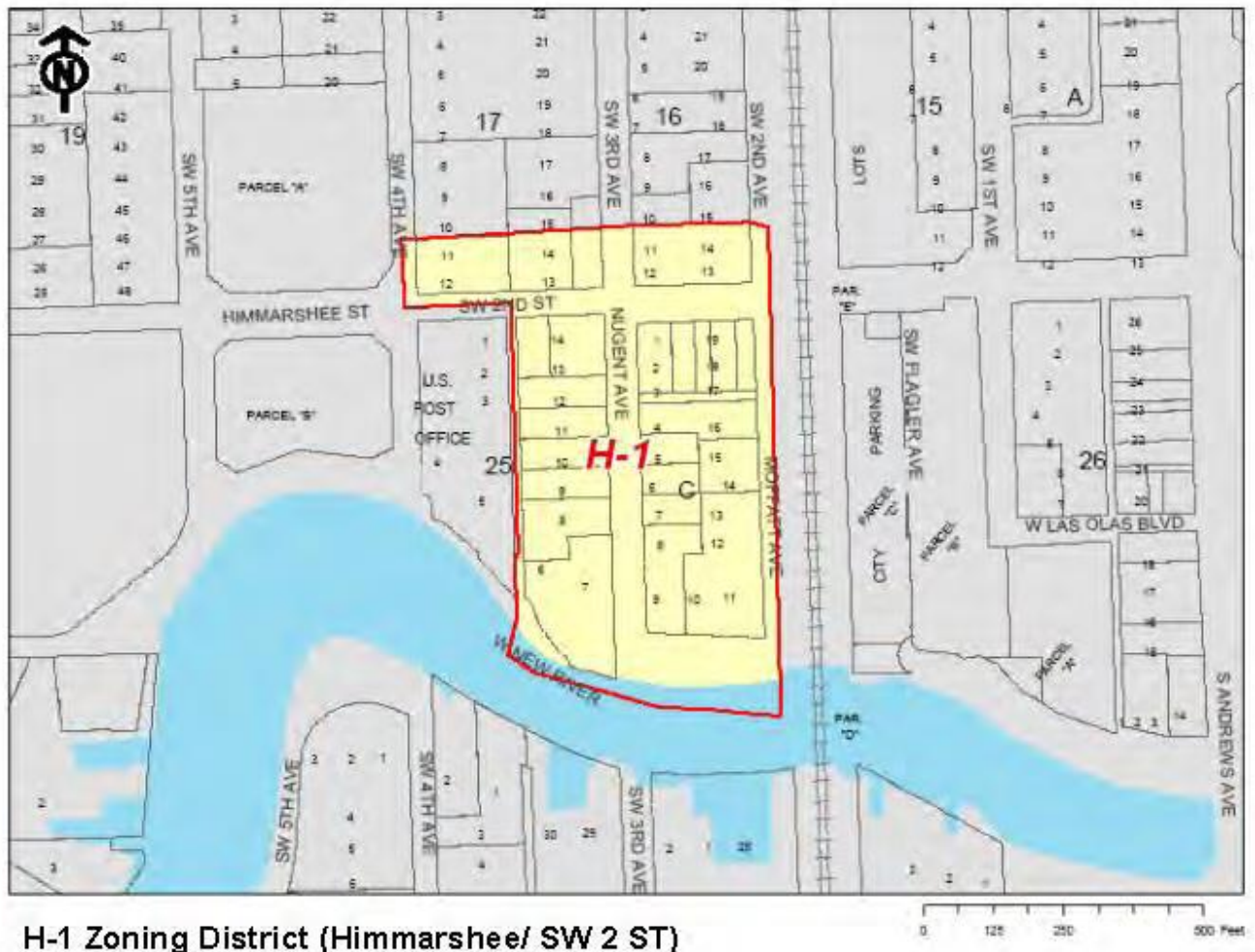
For general reference, Broward County has an historic preservation and archaeological ordinance, professional staff dedicated to historic preservation and an appointed historic preservation board nominated by the Board of County Commissioners. Broward County recently completed a state cultural resource/historic preservation project, funded by the State of Florida to fully identify, document, catalogue and map a wide variety of cultural and archaeological resources throughout the County. The County has demonstrated a significant interest in, and commitment to, the preservation of historic resources and should have been consulted prior to the publication of the Draft EIS with respect to potential regional impacts.

As previously mentioned, the Project is adjacent to, and will impact use of and access to, the Himmarshee Street/SW 2nd Avenue Historic District (H-1) within Fort Lauderdale, Florida, which includes NRHP designated sites such as the New River Inn². Overall, the Himmarshee Historic District is the oldest section of the commercial downtown in Fort Lauderdale. It includes early 20th century businesses located along the north and south sides of Himmarshee Street. The district is bounded on the east by the railroad tracks, the New River on the south, and the west side of Nugent Avenue and portions of the north side of SW 2nd Street. There are about seventeen (17) properties in the vicinity, including the Fort Lauderdale Historical Society in the Hoch Heritage Center, the Philemon Bryan House, the King-Cromartie House and the restored New River Inn (previously-identified) which operates as an historical museum. In addition, the historic Bryant Homes operated as the River House Restaurant and is a site of great interest to the City of Fort Lauderdale in redevelopment efforts. A replica of the first Fort Lauderdale school house has also been reconstructed within the district.³ A map of the Historic District

² Located at 231 SW 2nd Avenue, Fort Lauderdale, Florida

³ See City of Fort Lauderdale Planning and Zoning Department report on historic resources, January 2009, last accessed November 24, 2014, at <http://www.fortlauderdale.gov/home/showdocument?id=222>.

shows its immediate proximity to the Project, below. Taken together, the FRA and All Aboard Florida should pursue consultation with local governments on historic site and use impacts, and include sufficient information to ensure that the Project avoids the use of historic sites, describes the evaluation of prudent and feasible alternatives to avoid such a use, or describes how the Project and the FRA have used all possible planning tools to minimize harm to historic sites to better comply with Section 106 and Section 4(f) review requirements.



Pickart, Kenneth

From: Virginia.Lane@faa.gov
Sent: Tuesday, December 9, 2014 2:51 PM
To: AAF_Comments_Reply
Cc: john.winkle@dot.gov
Subject: Draft EIS and Section 4(f) Evaluation for the All Aboard Florida Intercity Passenger Rail Project

The Federal Aviation Administration (FAA), as a cooperating agency, has reviewed the Draft Environmental Impact Statement (DEIS) provided in September 2014. FAA comments provided on the preliminary DEIS were adequately addressed by the FRA.

Virginia Lane, Environmental Protection Specialist
FAA Orlando Airports District Office
5950 Hazeltine National Drive, Suite 400
Orlando, FL 32822
407-812-6331 Ext. 129



East Central Florida Regional Planning Council

309 Cranes Roost Blvd. Suite 2000, Altamonte Springs, FL 32701
Phone 407.262.7772 • Fax 407.262.7788 • www.ecfrpc.org

Hugh W. Harling, Jr. P.E.
Executive Director

November 4, 2014

Lauren P. Milligan, Coordinator
Florida State Clearinghouse
Florida Department of Environmental Protection
3900 Commonwealth Blvd, M.S. 47
Tallahassee, FL 32399-3000

RE: Department of Transportation, Federal Railroad Administration (FRA) – Draft Environmental Impact Statement and Section 4(f) Evaluation, All Aboard Florida Intercity Passenger Rail Project, Orlando to Miami – Orange to Miami-Dade Counties, Florida.
SAI # FL201409237031C

Ms. Milligan,

The East Central Florida Regional Planning Council received the Department of Transportation, Federal Railroad Administration (FRA) – Draft Environmental Impact Statement and Section 4(f) Evaluation, All Aboard Florida Intercity Passenger Rail Project, Orlando to Miami – Orange to Miami-Dade Counties, Florida (SAI # FL201409237031C).

No comments from local governments were received by the ECFRPC to date.

The ECFRPC staff, in review of the Draft EIS, offers the following comments in relation to the Central Florida 2060 Plan (ECFRPC Strategic Regional Policy Plan). The policies stated below are taken from the Central Florida 2060 Plan.

SRPP Chapter 3: Natural Resources

- Prevent the incremental severing of regional ecosystems and ecological corridors by identifying and protecting natural resources of regional significance.
 - Strategies should be implemented to ensure ecosystem services and corridors are not severed by the rail alignment.
- Native vegetative and aquatic communities should be protected to the maximum extent possible.
 - During and post construction of new tracks and track upgrades, efforts and appropriate guidelines should be implemented to protect communities along the corridor. This would include noise abatement and debris control from construction.
- Support Best Management Practices (BMPs), such as wildlife underpasses, that protect ecological corridors when development and infrastructure improvements occur.
- The function of significant wetlands or wetland habitat should not be degraded if identified as a NRORS.
 - During and post construction of new tracks and track upgrades, efforts and appropriate guidelines should be implemented to protect wetland functions and habitats.

Executive Committee

Chair	Vice Chair	Secretary	Treasurer	Member at Large
Chuck Nelson County Commissioner Brevard County	Lee Constantine County Commissioner Seminole County	Welton Cadwell County Commissioner Lake County	Leigh Matusick City Commissioner Volusia County League of Cities	Jill Rose Gubernatorial Appointee Orange County

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SRPP Chapter 4: Economic Development

- Support efforts that connect regional airports, rail systems, and seaports to gain a competitive advantage in the global marketplace.
 - Due to the purpose of All Aboard Florida focusing on tourism travel between Central Florida and South Florida, it is recommended that Port Canaveral be included as a destination stop for the rail service. Port tourists travel in/out of OIA, thus providing the need for a rail connection to the Port. Additionally, the connection could increase the number of tourists connecting to south Florida from Port Canaveral as part of their visit.

SRPP Chapter 5: Transportation

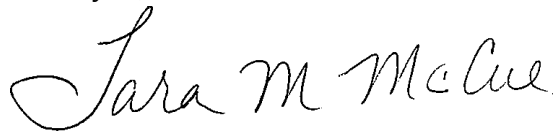
- Promote a Multi-modal transportation system that provides for the safe, efficient, and cost effective movement of people and goods.
 - The system should not only be safe for train riders, but collaboration should include local governments and transportation agencies to ensure crossings are safe for pedestrians, motorists, trail users, and others. Coordination for appropriate safety measures should include where tracks come within the vicinity of multi-use trails and high pedestrian corridors.
- Support passenger rail transit (i.e. light rail, commuter rail, street-car, and high-speed rail) in select corridors to connect population centers.
- Plan for multi-modal connections from airports and seaports to job and tourist centers.
 - The above supports the recommendation that a station stop should be included at or near by Port Canaveral.
- Ensure that the transportation network, especially public transportation, supports the emergency evacuation needs of the region.
 - Is there consideration for the Rail to be used for evacuation purposes?

SRPP Chapter 8: Energy and Climate Change

- Promote the co-location of new or expanding utilities in existing corridors and rights-of-way.
 - Utilize existing corridors and rights away where feasible.

Please contact Tara McCue, AICP at tara@ecfrpc.org or 407-262-7772 ext. 327 if you have any questions or need additional information.

Thank you,



Tara M. McCue, AICP
Director of Planning and Community Development

Executive Committee

Chair	Vice Chair	Secretary	Treasurer	Member at Large
Chuck Nelson County Commissioner Brevard County	Lee Constantine County Commissioner Seminole County	Welton Cadwell County Commissioner Lake County	Leigh Matusick City Commissioner Volusia County League of Cities	Jill Rose Gubernatorial Appointee Orange County

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The Board of County Commissioners of Indian River County, Florida

Comments on Draft Environmental Impact Statement and Section 4(f) Evaluation for the All Aboard Florida, Orlando to Miami, Florida Intercity Passenger Rail Project

The Board of County Commissioners of Indian River County, Florida (the “Board”) respectfully submits these comments to the Federal Railroad Administration (“FRA”) with regard to the Draft Environmental Impact Statement (“DEIS”), and Section 4(f) Evaluation dated September 2014 prepared for All Aboard Florida, Orlando to Miami, Florida Intercity Passenger Rail Project (the “Proposed Project”). The Proposed Project’s sponsor, All Aboard Florida – Operations LLC (“AAF”), has applied for \$1.875 billion dollars in federal funds through the Railroad Rehabilitation and Improvement Financing (“RRIF”) program, which is administered by the FRA.¹

The DEIS was prepared to assist the FRA in satisfying its obligations with respect to the Proposed Project under the National Environmental Policy Act (“NEPA”), 42 U.S.C. § 4321 *et seq.*, and applicable NEPA requirements, including the regulations adopted by the Council on Environmental Quality (“CEQ”), appearing at 40 C.F.R. Parts 1500-1508, FRA’s regulations appearing at 49 C.F.R. § 260.35, FRA’s “*Procedures for Considering Environmental Impacts*” published at 64 Fed. Reg. 28545 (5/26/1999) (“FRA NEPA Procedures”), and Order 5610.1C “*Procedures for Considering Environmental Impacts*” issued by the United States Department of Transportation (“USDOT”) (9/18/1979) (“USDOT NEPA Procedures”) (attached as Exhibit A).

NEPA requires that “to the fullest extent possible” an environmental impact statement (“EIS”): (i) disclose and assess the impacts of major federal actions significantly affecting the environment; and (ii) consider the reasonable alternatives to such actions and mitigation measures that would avoid or minimize those impacts. *See* 42 U.S.C. § 4332; 40 C.F.R. § 1502.1. The fundamental purpose of these requirements is to ensure that federal decision-makers understand the short and long-term impacts of their actions, and how such impacts might be addressed, before they take action.

For the reasons discussed in detail below, the Board believes that the DEIS does not take a “hard look” at the environmental impacts of the Proposed Project, and fails to provide FRA with the information needed to satisfy its obligations under NEPA. In particular, the Board has identified a number of potentially significant environmental impacts that were not adequately addressed in the DEIS, and others that were not examined at all.

Moreover, the DEIS contains information intended to satisfy Section 106 of the National Historic Preservation Act (“Section 106”), 16 U.S.C. § 470 *et seq.*, which requires federal agencies to consider the effect of their undertakings on historic resources, through a consultation process that requires that local governments be invited to participate. FRA failed to follow this mandatory process by electing not to invite most local governments, including Indian River County (the “County”), to participate. As a result, the DEIS missed several historic resources within the County, and probably many others in localities that also were not invited to join in the Section 106 consultation. FRA

¹ On March 15, 2013, AAF submitted two RRIF loan applications to FRA for a total of \$1.875 billion.

cannot, therefore, satisfy its Section 106 obligations based on the information presented in the DEIS.

Likewise, the Section 4(f) Evaluation prepared for the Proposed Project is fundamentally flawed. That analysis is supposed to assist FRA in protecting publicly owned parklands, recreation areas, or historic sites of national, State, or local significance. Under Section 4(f) of the Department of Transportation Act of 1966, Pub. L. 89-670 (1966) (now codified at 49 U.S.C. § 303(c)), FRA is prohibited from approving any project that would “use” a Section 4(f) resource unless it finds: (1) there is no prudent and feasible alternative to using that resource; and (2) the program or project includes all possible planning to minimize harm to the resource resulting from the use. 49 U.S.C. § 303(c); FRA NEPA Procedures § 12, 64 Fed. Reg. 28552. As discussed in the comments below, the Board believes the Section 4(f) Evaluation fails to identify or assess the effects of the Proposed Project on significant Section 4(f) resources, and does not provide FRA with a sound basis for issuing findings under Section 4(f).

Similarly, the DEIS does not provide the analysis needed for a consistency determination under the federal Coastal Zone Management Act (“CZMA”), 16 U.S.C. § 1451 *et seq.*

In light of the serious deficiencies the Board has identified in the DEIS and Section 4(f) Evaluation, the Board is deeply concerned that the Proposed Project has already advanced well beyond the preliminary planning stage, and gives the appearance of becoming a *fait accompli*. FRA has allowed AAF to segment the environmental review of the Miami to West Palm Beach component (“Phase I”) from other portions of the Proposed Project, and construction of Phase I has begun without a cumulative analysis of the impacts of the Proposed Project as a whole. Moreover, according to FRA’s “On-Site Engineering Report – Part 2 for All Aboard Florida” at 2 (9/23/2014) (attached as Exhibit B), engineering plans for portions of the Proposed Project running through (at least) Brevard and Indian River Counties are expected to be advanced to 90% by March 2015. Perhaps most alarming are statements within the DEIS itself that FRA has already made key determinations with regard to the Proposed Project at such an early point in the environmental review process that it did not even have the benefit of NEPA documentation to inform its decision-making. For example, the DEIS states “FRA has determined that the significant delays, costs, and risks associated with the use of elevated structures make raising any of the corridor bridges not feasible.” DEIS at 5-27.

The Board notes that NEPA prohibits federal agencies and applicants for federal agency approvals or funding from taking actions that would limit the choice of alternatives or otherwise signal premature approval of the application in advance of completion of the NEPA process. *See* FRA NEPA Procedures § 7(c), 64 Fed. Reg. 28549; 49 C.F.R. § 260.35(e); 40 C.F.R. § 1506.1. Typically, agencies within the USDOT use preliminary design work to prepare relevant NEPA documentation, in recognition of the fact that advancing design beyond that stage could tip the agency towards a commitment to a particular course of action without a fair and balanced consideration of reasonable alternatives.

To summarize the problems identified in these comments, the DEIS is grossly inadequate and precludes a meaningful analysis of the Proposed Project. The Board, therefore, requests that no further action be taken by FRA to advance the Proposed Project, unless and until a supplemental DEIS is prepared, and the subsequent requirements of NEPA, Section 4(f), Section 106 and the CZMA are fully satisfied. *See* 40 C.F.R. § 1502.9(c); FRA NEPA Procedures § 13(e), 64 Fed. Reg. 28554.

Set forth below are the Board's comments on the DEIS and Section 4(f) Evaluation. Also attached, and incorporated into the Board's comments, are the technical comments prepared by CDM Smith, the environmental consultant the Board retained to review the DEIS and Section 4(f) Evaluation.

1. Alternatives: The Alternatives Analysis Provided in the DEIS is So Narrowly Circumscribed by AAF's Financial Interests as to be Meaningless.

The alternatives analysis is supposed to be "the heart of the environmental impact statement." 40 C.F.R. § 1502.14. Accordingly, agencies are directed by the CEQ Regulations to "[r]igorously explore and objectively evaluate all reasonable alternatives" that might avoid or minimize the impacts disclosed in an EIS. *Id.* While every conceivable alternative need not be examined, a "range of reasonable alternatives" meeting the purpose and need of the action must be considered. *Id.*² One example provided by USDOT guidance of the sorts of alternatives to be considered are those "related to different locations ... which would present different environmental impacts." USDOT NEPA Procedures, Attachment 2 at 3.

Notwithstanding the significant impacts that operation of a high speed train along the Florida East Coast Railroad ("FECR") corridor would have on the densely populated east coast of Florida, the DEIS lacks a comparative environmental analysis of even one alternative route. Instead, it short circuits the alternatives analysis by narrowly defining the "purpose and need" for the Proposed Project based on AAF's preferences, and then screening out all the other available routes in a "tiered" approach as failing to meet that sharply circumscribed purpose and need.

Thus, the DEIS states that "*AAF* identified *its* primary objective for the Proposed Project, which is to provide an intercity rail service that is sustainable as a private enterprise." DEIS at 2-10 (emphasis added). "Sustainable," according to the document, means that operation of the rail service can "meet revenue projections" and "operate at an acceptable profit level." *Id.*; DEIS at 3-1. Stepping off from the objective of providing a profitable rail service, the DEIS then applied "AAF evaluation criteria" including "six critical determining factors." Prominent among those factors were those relating to project economics, including the ease with which AAF could acquire property, the ability to "commence construction in the near term to control costs," and limiting the "costs of

² Likewise, USDOT guidance states that an essential element of an alternatives analysis should be a "rigorous exploration and an objective evaluation of the environmental impacts of all reasonable alternative actions, particularly those that might enhance environmental quality or avoid some or all of the adverse environmental effects." USDOT NEPA Procedures, Attachment 2 at 3.

development, including cost of land acquisitions, access, construction, and environmental mitigation.” *Id.* at 3-2. The document then applies such “critical determining factors” to other available routes. Given the fact that AAF had already secured from its parent corporation the land interests needed for the Proposed Project, and AAF put forward a wholly unrealistic build year of 2016, it is no surprise that the analysis came to the preordained conclusion that all the other alternatives are so meritless as to not warrant substantive analysis in the DEIS.

By creating a screen that is tilted in one direction only, the DEIS side-stepped the fact that the Florida High Speed Rail Authority in a 2003 alternatives evaluation entitled “*Orlando-Miami Planning Study*” rated every other route as *superior* to the FECR corridor than would be used by the Proposed Project. That study compares the FECR route to three other potentially available north-south corridors in the following table:

Route	Travel Time	Capital Cost	Ridership / Revenue	Environmental
CSX	Fair	Good	Fair	Fair
I-95	Good	Fair	Good	Good
Turnpike	Good	Good	Fair	Good
FECR	Poor	Poor	Good	Poor

Orlando-Miami Planning Study at 1-6 (attached as Exhibit C).

Thus, under three of the four criteria applied in that study -- travel time (a factor cited as critical in the DEIS on page 3-5), capital cost and environmental impacts -- the FECR corridor was rated at rock bottom. It is only in terms of revenue that the Proposed Project tied with another alternative and was rated favorably. Thus, if the DEIS were to look beyond the economic interests of AAF, the sponsor of the Proposed Project, to salient issues such as environmental impacts, other routes would certainly merit detailed consideration in the DEIS. However, those routes were ruled to be off limits under self-serving criteria of AAF’s own devising.

The truncated approach utilized in the DEIS does not conform to the requirements of NEPA for one fundamental reason: it is not the project sponsor’s purpose and need that should control the alternatives analysis, but the agency’s purpose and need in taking the action that is the subject of the NEPA review. Thus, AAF’s desire to turn a profit should not dictate the alternatives considered by FRA in determining how it should expend federal rail funds. Guidance issued by CEQ states that “[i]n determining the scope of alternatives to be considered, the emphasis is on what is ‘reasonable’ rather than on whether the proponent or applicant likes or is itself capable of carrying out a particular alternative. Reasonable alternatives include those that are practical or feasible from the

technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant.” CEQ, “*Forty Most Asked Questions Concerning CEQ’s NEPA Regulations*” Question 2a, 46 Fed. Reg. 18026, 18027 (3/23/1981).

The Board does not dispute that the economic objectives of the Proposed Project sponsor may be taken into account by the agency in defining its purpose and need, and in identifying the alternatives for consideration in an EIS. However, those interests should not be given such weight as to exclude other relevant considerations. This is especially so with respect to high speed rail in Florida, where a number of potentially viable options have been carefully studied in planning documents that have been previously prepared in relation to other projects. According to the *Orlando-Miami Planning Study*, CSX, I-95 and the Florida Turnpike corridors present far fewer environmental impacts and a much sounder basis for public investment than the FECR corridor. However, the referenced alternatives were summarily dismissed in the DEIS without any sort of analysis considering whether the chosen FECR alternative would cause the most negative impacts to: (a) the health and safety of the citizens of the Treasure Coast of Florida, (b) the historical and archeological sites along the Treasure Coast of Florida and (c) the fragile Indian River Lagoon.³ FRA cannot simply ignore other legitimate alternatives simply because AAF, the sponsor of the Proposed Project, would like it to do so.

2. Cumulative and Secondary Impacts: The DEIS Fails to Assess the Cumulative and Secondary Impacts of the Proposed Project, in Combination with Reasonably Foreseeable Future Actions.

Under NEPA, FRA is obligated to examine not only the direct and immediate effects of the Proposed Project, but also its *indirect* or secondary impacts and its *cumulative* impacts, in combination with those of other reasonably foreseeable actions. See CEQ’s NEPA Regulations, 40 C.F.R. §§ 1502.16, 1508.8; FRA NEPA Procedures §§ 10(b), (14(n)), 64 Fed. Reg. 28550, 28554; USDOT NEPA Procedures, Attachment 2 at 4; see also CEQ, “*Considering Cumulative Effects under NEPA*” (1/1997) (attached as Exhibit D). With respect to indirect effects, the CEQ regulations are clear that impacts that are caused by an action, but “are later in time or farther removed in distance, but are still reasonably foreseeable” must be thoroughly considered in an EIS. 40 C.F.R. § 1508.8. More particularly, the growth-inducing impacts of a transportation project must be carefully examined. *Id.* The CEQ regulations are equally clear with respect to cumulative impacts, requiring that the effects of an action must be “added to [those of] other past, present and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.” *Id.* § 1508.7; see also *id.* § 1508.27(b)(7). These principles have been applied by

³ The Indian River Lagoon is North America’s most diverse, shallow-water estuary. It spans approximately 156 miles along Florida’s east coast. The total estimated annual economic value of the Indian River Lagoon is \$3.7 billion, supporting 15,000 full and part-time jobs and providing recreational opportunities for 11 million people per year. The Proposed Project calls for building a new bridge over the St. Sebastian River. The St. Sebastian River is located in Indian River County. It is one of the Indian River Lagoon’s natural tributaries.

the courts in numerous cases to invalidate EISs for failure to assess indirect and cumulative project impacts.

Inexplicably, the DEIS makes no serious attempt to address the indirect or cumulative impacts that would result from the Proposed Project. For example, indirect or secondary impacts on land use are passed over with the statement that “[t]he project would not result in induced growth; no changes to land use due to induced growth would occur.” DEIS at 5-4. Although the DEIS mentions that the Phase 1 Environmental Assessment (“EA”) addressed “development in the vicinity of” the proposed stations in West Palm Beach, Fort Lauderdale and Miami, *id.* at 5-5, close examination of the information provided in that document, in light of other statements made by AAF, make clear that no meaningful attention has been paid to the secondary development associated with either phase of the Proposed Project.

Thus, according to the DEIS, the EA indicated that at “West Palm Beach and Fort Lauderdale, there will be 10,000 square feet of retail space within the station. At Miami, the [Proposed] Project includes 30,000 square feet of retail within the station, and additional 75,000 square feet of transit-oriented retail, 300,000 square feet of office space, 400 residential units, and a 200-room hotel.” *Id.* at 5-5. Indeed, the Phase 1 EA does recite the same information, and includes a bare-bones (and inadequate) analysis of the environmental impacts that would result from this development. However, nowhere in either the DEIS or the EA is any meaningful information or analysis provided concerning the *additional* development that would be induced by the Proposed Project and this transit oriented development.

The obligation to address the potential effects of such induced development cannot be avoided on the basis that it is speculative. In a “Preliminary Offering Memorandum” dated June 4, 2014, AAF confirmed that there are *current plans* for construction going well beyond the ancillary development identified in the DEIS and EA, and that sufficient information with respect to such planned development is available for a thorough analysis of its impacts. In particular, that document disclosed that: (i) AAF owns 21 acres in the areas surrounding the proposed stations; (ii) that it anticipates demand for 3.5 million square feet of development on those parcels; and that it expects to build 2 million square feet of that new development *contemporaneously* with the Proposed Project. That initial development is to include 1.3 million square feet in Miami, and 345,000 square feet in both Palm Beach and Fort Lauderdale. AAF also believes there is demand for subsequent future development totaling 1.5 million square feet including a 1.1 million square foot “super tower” for the area adjacent to the Miami station, and an additional 345,000 square feet of residential space in Fort Lauderdale. Thus, the development disclosed in the EA is a fraction of the currently planned and future development resulting from the Proposed Project. Given the specificity of AAF’s articulated intentions, sufficient information is available for a detailed environmental review of the traffic, air pollution, construction, noise and neighborhood character impacts of this reasonably foreseeable future development. The DEIS is deficient in that it failed to include such a review.

The DEIS is also lacking in its analysis of cumulative impacts. For example, it fails to address the cumulative impacts of the Proposed Project together with those of the Tri-Rail Coastal Link Project,

another major initiative that is likely to have significant impacts along 85 miles of the FECR corridor. Under that project, 25 or more commuter round trips will be added to the very same tracks to be used for the Proposed Project. Those additional trains will serve 25,000 passengers each day, at 20-25 new stations. The DEIS specifically excludes this important project and its overlapping impacts from the environmental analysis, stating that it is in the “preliminary planning stage.” DEIS at 5-163. Attempting to justify this characterization, the document goes on to state that the “[t]he Tri-Rail Coastal Link Study is being undertaken by the Florida Department of Transportation (“FDOT”), and is evaluating the use of the FECR Corridor for the Tri-Rail service, which currently operates on the CSX-controlled railroad right-of-way west of the FECR Corridor.” *Id.* One would gather from these statements that the Tri-Rail project is in the very early stages of planning, and that the information required for a cumulative impacts analysis of such a speculative project is not available. But that characterization is wholly inaccurate. An example of the degree to which the Tri-Rail Coastal Link Project has advanced is the Letter Agreement dated April 25, 2014, between AAF and South Florida Regional Transportation Authority (“SFRTA”), the sponsor of Tri-Rail Coastal Link Project, which provides the details for the shared use of the rail corridor between the two entities for the provision of high speed and commuter rail. See www.ircgov.com/Public_Notices/Rail/Tri-Rail-Non-Compete.pdf (also attached as Exhibit E)

In addition, substantial Federal and State resources have been expended in the planning and environmental review of the Tri-Rail Coastal Link project, and there is no informational impediment to a cumulative environmental review. In particular, many studies have already been completed for the Tri-Rail Coastal Link Project, including several issued by FDOT such as the *Final Conceptual Alternatives Analysis/Environmental Screening Report* running for 387 pages issued in 2009 (attached as Exhibit F); a 189 page *Detailed Environmental Screening Report* issued in 2010 (attached as Exhibit G); and a 168 page *Final Alternatives Analysis Report* issued in 2011 (attached as Exhibit H). Thus, detailed information has been compiled with respect to that project, its alternatives and environmental impacts as a result of years of exacting analysis. Moreover, a final *Preliminary Project Development Report* (attached as Exhibit I) for the Tri-Rail Coastal Link was submitted to FRA’s sister agency, the Federal Transit Administration (“FTA”), in April 2014. Clearly, a project to which such an intense, federally supported planning effort has been devoted is “reasonably foreseeable” within the meaning of NEPA. In fact, the website for the Tri-Rail Coastal Link project (http://tri-railcoastallink.com/frequently_asked_questions.html, also attached as Exhibit J) states that its sponsors have “closely collaborated” with the AAF team, and puts the estimated timeframe for completion of the Tri-Rail Coastal Link project within the same timeframe that would reasonably be expected for the Proposed Project, if it advances. It is also notable that AAF’s June 4, 2014 “Preliminary Offering Memorandum” indicates that use of the FECR corridor by Tri-Rail Coastal Link may cause delays to construction of the Proposed Project, and lead to operational and safety risks that require careful study in a cumulative environmental review.

It is well settled that when several proposals for related actions that will have cumulative or synergistic environmental impacts upon a region are pending concurrently before an agency, their environmental consequences must be considered together. The Tri-Rail Coastal Link project and

the Proposed Project are both pending before USDOT agencies, and the Proposed Project has been specifically identified as being related to the Tri-Rail Coastal Link Project. *See* Tri-Rail Coastal Link's *Preliminary Project Development Report* at 1-14. Moreover, this case is not a circumstance where the Tri-Rail Coastal Link project is so speculative as to preclude a meaningful cumulative impact analysis. On the contrary, a wealth of detailed planning and environmental information has been available for years, and that information should have been tapped in assessing the combined impacts of these related projects and whether the Proposed Project, if approved, would adversely affect the operation of the Tri-Rail Coastal Link. The DEIS is fundamentally flawed in that it failed to do so.

3. DEIS Assumptions: The DEIS is Based on an Unrealistic Build Year and Assesses Critical Impacts Only on Opening Day, Thereby Failing to Analyze Projected Full Operational Impacts

The analysis presented by the DEIS is founded upon fundamentally flawed assumptions that provide no basis for an accurate projection of long-term impacts.

First, 2016 is not a proper baseline year for the analysis since that date is a mere two years from today. Given that FRA will be reviewing comments on the DEIS in December 2014, it is wholly unrealistic to believe that all of the following items can be completed by 2016:

- concluding the NEPA review process;
- securing all permits and approvals, including those from the United States Army Corps of Engineers, Federal Aviation Administration, United State Coastal Guard (“USCG”), Federal Highway Administration (“FHWA”), United States Fish and Wildlife Service, National Marine Fishery Service, plus those from multiple state and local agencies;
- finalizing all design documents;
- letting all construction contracts;
- constructing:
 - a new station in Orlando;
 - a new vehicle maintenance facility;
 - dozens of new overpasses, bridges, tunnels, ramps, and related infrastructure and safety features;
 - upgrading/expanding 170 highway-rail grade crossings, including designing and installing safety infrastructure; and
 - hundreds of miles of rail bed and new track; and
- performing diagnostic and system testing of all individual elements and system wide operations for performance and safety.

Nothing in the DEIS gives any indication that extraordinary arrangements have been put into place to accomplish the tasks required for completion of the Proposed Project within such a compressed timetable. In fact, the document does not even call for, or analyze, after-hours work during the construction period. In light of the impossibility of meeting a 2016 opening date, prior to issuing the DEIS, AAF publicly shifted the opening date to 2017 even though the DEIS was keyed to 2016. *See* Orlando Business Journal, “3 Reasons Why All Aboard Florida in Orlando Was Delayed” (7/9/2014) (attached as Exhibit K). However, even 2017 seems like a pipedream, given the long list of items that must be satisfied and the sheer magnitude of the construction that must be completed before the system could become operational. *See, e.g., id.* (which notes that approval of new station at the Orlando Airport still has many hurdles to overcome and would take three years to construct from final approval).

Utilization of an unrealistically early baseline year would result in the understatement of certain critical impacts, including and possibly most notably, noise. The reason for this is that the significance criteria set forth in the relevant guidance are based upon a sliding scale that is keyed to ambient noise levels as they are expected to exist in the baseline year. *See* FRA’s “*High-Speed Ground Transportation Noise and Vibration Impact Assessment Guidance Manual*” (the “FRA Noise Manual”) at Chapter 3 (9/2012); FTA’s “*Transit Noise and Vibration Impact Assessment*” at Chapter 3 (5/2006). Under those criteria, the higher the noise levels are during the baseline year, the lower the incremental increase need be to create a significant impact. *Id.* As the DEIS indicates, freight and vehicular traffic are expected to increase along the FECR corridor in the coming years, and other projects (including but not limited to Tri-Rail Coastal Link) can be expected to come on-line in the near future. Accordingly, existing ambient noise will increase and the noise increment that would produce significant impacts will decrease as time goes on. Therefore, noise impacts may be understated if an unrealistically early baseline year is utilized in the analysis. For these reasons, FRA should require AAF to prepare and submit a well-grounded conceptual development schedule for the Proposed Project that either justifies utilization of the 2016 baseline year or provides for a more realistic timetable for completion. In the event a later baseline year is identified, the noise analysis must be revised to reflect background conditions in that year.

In addition, as a result of the illusory 2016 build year the DEIS omitted any real discussion of construction, including its duration, sequencing, staging, techniques and impacts, claiming that the activities and impacts associated with building the Proposed Project would all be extremely short term. As discussed in the comments below, the details regarding the construction of this massive \$1.875 billion dollar project, as well as the impacts that would be experienced during the period of construction, need to be brought to light and analyzed under a realistic construction schedule.

There is a second fundamentally flawed assumption running through the DEIS analyses of noise, vibration and navigation, in that they focus on operations of the Proposed Project as of an opening day, rather than on operating conditions as they will be when the rail line is in full operation. Thus, the DEIS assesses the effects of 16 round trips per day, which reflects the number of trips needed to service passenger demand as of 2016. According to the *All Aboard Florida Ridership Revenue Study*

Summary Report prepared by the Louis Berger Group in September 2013 (the “*LBG Study*”), which is attached as Appendix 3.3-F to the DEIS, approximately 1 million riders are expected as of 2016. DEIS App. 3.3-F at 4. However, the DEIS itself reports that ridership is expected to grow sharply in the first few years of operation, and level off at 3.5 million passengers as of 2019. *Id.*

Moreover, what the DEIS does not mention is that the *LBG Study* predicts ridership levels for 2019 to range from a *low* of 3.5 million (in what is characterized as the “base case” which ignores developments that are “subject to some uncertainty”), to 4 million (in the “business plan case,” which takes into account AAF’s plan to expand ridership), to a high of 5.1 million in the “management case” (which accounts for more aggressive marketing strategies by AAF). *Id.* Moreover, even in the “business plan case” the study predicts ridership to rise to approximately 5.5 million by 2030. *Id.* Thus, based upon AAF’s own study, ridership is expected to be more than 5 *times* the ridership expected when service begins in 2016.

Most of the operational impacts of rail projects – including but not limited to noise, vibration and navigation delays at draw bridges – are caused by train pass-by incidents. Since the significance of the impacts depends, in important part, upon the number of passbys, the adequacy of the analysis in an EIS for a rail project depends upon the accuracy of the prediction of how many passbys will occur. Under NEPA, an EIS must examine both the short-term impacts of a project, and also the reasonably foreseeable effects of that project over the long-term. Accordingly, the DEIS should have examined the anticipated effects of the Proposed Project not only upon the commencement of service but also over the longer term horizon. There is nothing in the DEIS to indicate that 16 round trips per day would meet ridership demand over the long term, or was properly used as the touchstone for the impacts analysis in the document.⁴

The Board does not dispute the appropriateness of including in the DEIS an analysis of short-term operational impacts of the Proposed Project, utilizing a realistic commencement date baseline year. However, it believes that a second baseline year of 2030 or later must also be assessed to capture the long-term impacts of the Proposed Project, in combination with other projects expected to be on line as of that time. This is particularly important because it can reasonably be anticipated that the new two-track FECR corridor created by the Proposed Project will be much more heavily used at that time for both passenger and freight traffic. The DEIS itself indicates that freight traffic is expected to increase sharply upon completion of the Panama Canal improvements, DEIS at 5-17, and other projects such as Tri-Rail Coastal Link can be reasonably expected to be operational a few years after the Proposed Project comes on line. Since it fails to present such a “horizon year”

⁴ The DEIS itself makes no mention of traffic and transportation impacts in any years other than 2016 and 2019. However, buried in Appendix 3.3-C, entitled “Grade Crossing Details,” is a brief description of some limited analyses performed for both 2016 and 2036. As discussed below, that analysis was not only obscured by its placement in an appendix to the DEIS, it also revealed exceptionally significant impacts, the implications of which should have been disclosed and thoroughly examined in the DEIS. It should be noted that the discussion in that appendix indicates that there would be a range of 16-19 passbys per day. *See, e.g.*, DEIS App. 3.3-C at 4-1.

analysis the DEIS is woefully deficient in its assessment of the long-term cumulative operational impacts of the Proposed Project on noise, vibration and other critical issues.

4. Climate Change: The DEIS Fails to Satisfy FRA's Legal Obligation to Adequately Analyze the Effects of Climate Change on the Proposed Project

The Proposed Project sponsors are seeking \$1.875 billion in low interest federal loan funds to facilitate construction of a high speed rail line in a corridor that lies completely within Florida's coastal zone and skirts in and out of the existing flood plain along 128.5 miles of the Atlantic Coast of Florida. Although the DEIS makes passing reference to the sorts of risks posed by climate change in locating a major new transportation facility in that area, it provides no meaningful analysis of such risks or the alternatives or mitigating measures that might minimize or avoid them.

Thus, the DEIS notes that “[t]ransportation systems [such as the Proposed Project] are vulnerable to extreme weather and climate change effects such as ... sea level rise, and more intense storm events ...” DEIS at 5-71. More particularly, the document acknowledges that “[t]he N-S and WPB-M Corridors of the [Proposed] Project are vulnerable to climate change effects in the near future. Both of these corridors are along the Florida coast and cross several coastal water bodies. Bridge structures, particularly those with lower elevation, will have increased vulnerability over time, and potential infrastructure damage may result from flooding, tidal damage and/or storms.” *Id.* at 5-72.

Nevertheless, the DEIS offers only the most cursory examination of the vulnerability of the Proposed Project to sea level rise or the more intense storm surges the document itself acknowledges will occur in the near future. The DEIS subjects only *two* of the 18 bridge crossings required for the N-S corridor to any sea level rise analysis at all, and with respect to those facilities it simply compares their elevations to expected sea levels in 2030 and 2060. From this comparison, the DEIS finds that the bottom chord of one of the bridges would be under water at high tide during a 100 year storm in 2030, with no mention at all of impacts in 2060. *Id.* at 5-75. The vague conclusion drawn from this lackluster analysis is that the “vulnerability [of the Proposed Project bridges] will increase as sea level rises” and “there may be increasing periods of time where the train is out of service during storm events.” *Id.* Nothing is said regarding the nature and extent of the property damage that may be caused to the bridge structures, or whether other components of the Proposed Project located within the substantially expanded future floodplain would also be at risk. Moreover, not a word is mentioned as to whether and how public safety would be put at risk in operating a high speed rail service within the corridor under such conditions, or mitigation opportunities.

The truncated analysis presented in the DEIS with respect to this issue stands at odds with firmly established federal policy on how climate change is to be accounted for in agency planning. In President Obama's 2009 Executive Order (“E.O.”) 13514 “*Federal Leadership in Environmental, Energy, and Economic Performance*,” all federal agencies, including USDOT and FRA, were directed to establish Climate Change Adaptation Plans. *See* 74 Fed. Reg. 52117, 52121, 52124 (10/8/2009). The

President subsequently instructed federal agencies to “ensure that climate risk-management considerations are fully integrated into federal infrastructure ... planning” in his “Climate Action Plan” issued in June 2013 (attached as Exhibit L). Shortly thereafter, the President issued E.O. 13653, “*Preparing the United States for the Impacts of Climate Change*,” which required all federal agencies to “reform policies and Federal funding programs that may ... increase the vulnerability of natural or built systems, economic sectors, natural resources, or communities to climate change related risks” and to “integrate consideration of climate change into agency operations and overall mission objectives” E.O. 13653, §§ 2 and 5, 78 Fed. Reg. 66819 - 66821 (11/6/2013).

USDOT complied with these directives by first issuing a Policy Statement in 2011, requiring integration of climate change adaptation strategies “into [its] core policies, planning, practices and programs.” USDOT, “*Policy Statement on Climate Change Adaptation*” at 2 (6/2011) (attached as Exhibit M). This policy also requires USDOT to use “best-available science” and apply “risk management methods and tools” in assessing and planning for climate change. *Id.* USDOT then issued a Climate Adaptation Plan which characterized the problem unique to transportation as follows:

Transportation infrastructure is inherently long-lived. Bridges, tunnels, ports and runways may remain in service for decades, while rights-of-way and specific facilities continue to be used for transportation purposes for much longer. In addition to normal deterioration, transportation infrastructure is subject to a range of environmental risks over long time spans, including wildfire, flood, landslide, geologic subsidence, rock falls, snow, ice, extreme temperatures, earthquakes, storms, hurricanes and tornados. Infrastructure designers and operators must decide the magnitude of environmental stress that any particular project will be able to withstand over its lifetime.

USDOT, “*Climate Adaptation Plan: Ensuring Transportation Infrastructure and System Resilience*” at 3 (5/2013) (attached as Exhibit N) .

To deal with this problem, USDOT found that “newly constructed infrastructure should be designed and built in recognition of the best current understanding of future environmental risks. In order for this to happen, understanding of projected climate changes would need to be incorporated into infrastructure planning and design processes, across the many public and private builders and operators of transportation infrastructure.” *Id.* at 6. More particularly, the agency committed to “take actions to ensure that Federal transportation investment decisions address potential climate impacts in statewide and metropolitan transportation planning and project development processes as appropriate in order to protect federal investments,” *id.* at 5, and indicates that “FRA will consider potential climate impacts and adaptation during rail planning and corridor program development.” *Id.* at 15.

The short shrift paid by the DEIS to the climate change-related implications of siting a federally funded high speed rail corridor in the coastal zone and flood plains of Florida falls far short of the careful planning envisioned by the President, and the commitments made by USDOT. It also does not conform to the requirement under NEPA that agencies consider thoroughly the “reasonably foreseeable” short- and long-term environmental impacts of their actions. In the event these deficiencies are not corrected, billions of dollars in federal resources could be poured into a project that would be under an ever-increasing threat from future sea level rise and storm surges, with no serious attention paid to the ensuing consequences to public safety or the investment itself, and with no consideration paid to the measures that could be taken to avoid them. Indeed, according to the DEIS no action would be taken at all to assure that the Proposed Project is designed to withstand the future risks of sea level rise. On the contrary, AAF has announced its intention to build according to a construction design that would “maintain existing elevations where feasible,” DEIS at S-14; and has specifically rejected the USCG request that alternatives be considered to raise the clearance beneath certain low bridges. Additionally, according to the DEIS, FRA has concluded that it would not be feasible to raise the clearance beneath certain bridges due to the significant delay it would cause to the Proposed Project, the overall costs and the risk associated with elevating the structures. *Id.* at 5-27.⁵ One can only assume from this conclusion that the short-term success of the Proposed Project is being given greater weight than the overall safety of the public and of the federal investment. Moreover, since other viable high speed routes were screened out of the analysis, no consideration whatsoever has been given to alternatives, such as the utilization of the interior CSX corridor for high speed rail, that would avoid such risks altogether. The effects of future sea level rise and storm surges on the Proposed Project are “reasonably foreseeable” impacts, and the DEIS was materially deficient in failing to address them.

5. Floodplains: Locating the Proposed Project in Floodplains Is Not Demonstrated to be the Only Practicable Alternative.

The Proposed Project would result in the siting of long stretches of a multi-billion dollar high speed rail line in Florida’s currently mapped floodplains, which can be expected to expand as a result of FEMA’s ongoing “coastal flood risk study” for the East Coast of Central Florida. In addition, the Proposed Project’s encroachment on floodplains would only increase with time as sea level continues to rise. FRA should not approve such a risky endeavor without first taking a hard look at other practicable alternatives, as required by the directives discussed below.

The very real risks of floodplain encroachment to humans and infrastructure were first recognized by President Carter in E.O. 11988, “*Floodplain Management*,” which was intended to “avoid [the federal government’s] direct or indirect support of floodplain development wherever there is a practicable alternative.” 42 Fed. Reg. 26951 (5/25/1977). This order requires federal agencies that

⁵ This determination appears to the Board to be premature, since the NEPA process has not yet been completed. Moreover, there is no hard data presented in the DEIS to support the rationale for such a determination.

propose to support or allow floodplain development to first consider alternatives to such development. *Id.* at 26952. As mandated by E.O. 11988, USDOT issued its own floodplain directive, which sets forth the department's policy with regard to floodplains. USDOT Order 5650.2 "*Floodplain Management and Protection*," (4/23/1979) ("USDOT Floodplain Order," attached as Exhibit O). Under that directive, all USDOT agencies, including FRA, must take certain steps before supporting a project that would result in a "significant encroachment" – a term that includes likely future damage to transportation infrastructure in a floodplain that could be substantial in cost or extent. *Id.* at 4, 8.

There can be no doubt that the Proposed Project would result in a "significant encroachment" on floodplains. According to the DEIS, more than a thousand acres of the study area for the Proposed Project lie in floodplains, with 332 acres in the E-W corridor and 472 acres on the N-S corridor. DEIS at 4-76 (Table 4.3.4-1).

For FRA to provide RRIF funding for the Proposed Project it must satisfy certain requirements under the USDOT Floodplain Order. First, it must ensure that the EIS "reflects consideration of alternatives to avoid [a significant] encroachment." USDOT Floodplain Order at 8. Next, the responsible individual at FRA must make a written finding that the proposed significant encroachment is the only practicable alternative. *Id.* Such a finding "requires a careful balancing and application of individual judgment" which should "include the full range of environmental, social, economic, and engineering considerations" where "special weight should be given to floodplain management concerns." *Id.* In addition, the finding must include a description of why the Proposed Project *must* be located in the flood plain, including the alternatives considered and why they were not practicable. The finding must also include a statement that the action conforms to applicable state and/or local floodplain protection standards. *Id.*⁶

The DEIS is entirely bereft of the information needed to satisfy FRA's obligations under E.O. 11988 or USDOT Order 5650.2. For example, due to the so-called "tiered" approach that AAF employed to screen out any meaningful alternatives analysis, neither in the few scant pages dedicated to floodplains nor anywhere else in the DEIS is there any detailed consideration of other possible routes.⁷ Moreover, the DEIS does not so much as identify, and certainly does not discuss, applicable state and/or local floodplain protection standards, so FRA would be wholly unable to find that the Proposed Project conforms to such standards. Accordingly, approval of the Proposed Project on the current record would run counter to the letter and spirit of a federal policy aimed at ensuring that federal dollars are not spent on infrastructure projects most vulnerable to the risk of flooding, unless there is no other practicable alternative.

⁶ Similar requirements are reflected in FRA's own NEPA Procedures. *See* FRA NEPA Procedures § 14(n)(8), 64 Fed. Reg. 28555. Under those procedures, the agency may only facilitate floodplains development if: (i) the head of the agency finds that the only practicable alternative to the project is to site it in the floodplain; (ii) the agency designs or modifies the project to minimize potential harm to or within the floodplain consistent with E.O. 11988, and (iii) the agency prepares and circulates a notice containing an explanation of why the action is proposed to be located in the floodplain. *Id.*

⁷ *See* the Board's Comment 1, above.

6. Construction Impacts: The Identification and Discussion of Construction Impacts is Virtually Absent from the DEIS.

It is well established that a NEPA EIS must discuss and evaluate the construction impacts that would result from a proposed action. *See, e.g., FRA NEPA Procedures*, 64 Fed. Reg. 28556 (an FRA NEPA EIS “should identify and assess the impacts associated with the *construction period* of each alternative” (emphasis added)); USDOT NEPA Procedures, Attachment 2 at 13.

Proceeding from the unrealistic premise that the Proposed Project would be constructed by 2016, the DEIS provides only the most superficial description of the construction-related activities that are anticipated, and little substantive assessment of the “temporary” construction period impacts those activities would cause. Thus, no details whatsoever are provided concerning the schedule for the work, the sequence of activities, the nature of those activities, the number and types of equipment that would be used, the level of truck traffic that would be generated in delivering materials to and disposing of waste from the work sites, the routes such trucks would take, road closures, detours, staging and storage area locations, or other matters critical to a meaningful impacts analysis. As a result, nothing of substance is discussed with respect to the impacts of construction activities on surrounding land uses, traffic, emergency response, or other critical issues.

Thus, the DEIS brushes aside construction-related land use impacts with a few words about “short-term construction easements on privately owned properties,” and the assurance that “pre-construction land use patterns would return once the construction period concludes.” DEIS at 5-5. Not a word is mentioned about the nature and extent of the disruption that would be caused to adjacent homes and businesses during the period that a massive infrastructure project is being constructed through the heart of downtown and residential areas. Indeed, rather than addressing the socioeconomic *impacts* of Proposed Project construction at all, the DEIS merely comes up with a few numbers on the economic benefits and jobs that could be generated by the work. DEIS at 5-130.

Likewise, the DEIS dismisses out of hand the traffic-related impacts of construction activities, stating that “the Project would result in minor, short-term impacts to freight rail transportation, regional highways and local vehicular traffic during construction.” DEIS at 5-14. With respect to freight traffic, the document reaches that conclusion based upon the assurance that “[n]ew track construction ... would be performed according to best management practices” without specifying what those BMPs might be or how they might avoid disruption to freight traffic. *Id.* With respect to vehicular traffic, the document mentions that there would be road closures, but states that “typically,” they would last no more than a week. No discussion appears at all as to whether there are certain roads that would be closed for a longer period; nor does the DEIS address whether police, fire or EMS emergency response would be delayed as a result of the road closures (and if so, what could be done to mitigate that impact). Moreover, no analysis is presented with respect to whether construction-related truck traffic would cause significant congestion on the roadways surrounding work sites and staging areas. Instead of disclosing construction period traffic impacts and identifying the mitigation measures to address them, the DEIS simply waves the issue away with

the assurance that “[p]roper planning and implementation and maintenance of mitigation measures (e.g., maintenance of traffic plans) will be specified and required for construction.” *Id.*

Given the magnitude of the effort required to build the Proposed Project, and the failure of the DEIS to include even a conceptual schedule backing up the contention that work would be completed by 2016, one can only assume that Proposed Project construction would extend over a period of many years. While the DEIS provides no information with respect to possible staging areas, it must also be assumed that such areas would be major facilities that are intensely busy over much if not all of that construction period. The potential environmental impacts associated with such activities and facilities should not have been dismissed with platitudes. Rather, they should have been carefully assessed, and specific mitigation measures should have been proposed to minimize them to the extent practicable.

Predictably, the half-hearted analysis included in the DEIS yields only the most amorphous mitigation measures. To provide a few examples, no mitigation at all is proposed to address the land use, socioeconomic and community character impacts of extended construction activities and prolonged conditions of disruption on affected commercial districts and residential areas; equally lacking are mitigation measures addressing vehicular traffic impacts during the construction period; transportation impacts on freight traffic are wished away with unspecified BMPs; and the only air emissions mitigation identified in the document relates to dust control, with no meaningful measures identified to address the effects of equipment and vehicular emissions of particulate matter of less than 2.5 microns (“PM_{2.5}”) or NO₂. Such issues are dismissed with the statement that “[p]otential emissions associated with construction equipment will be kept to a minimum as most equipment will be driven to and kept at affected sites for the duration of construction activities.” DEIS at 7-5. While such a practice may help reduce emissions related to the transport of such equipment, left unaddressed is the considerably more important issue of emissions from such equipment while operating at the work site. That issue cannot be put to rest by describing construction-related air impacts as “temporary,” because the health-related standards issued by the United States Environmental Protection Agency for the relevant pollutants are short term standards (*i.e.*, 24 hours for PM_{2.5} and 1 hour for NO₂).⁸ It is well established that diesel construction equipment emits PM_{2.5} and NO₂ in quantities that may result in serious air quality and public health impacts.

For these reasons, the DEIS does not take the “hard look” at construction period impacts that NEPA demands.

⁸ Although some analysis is presented in the DEIS with respect to Noise and Vibration impacts during construction, that analysis is deficient for the reasons discussed in the Board’s Comment 7.B below, and in the attached comments prepared by CDM Smith.

7. **DEIS Impact Analyses: The DEIS Fails to Properly Evaluate Two of the Most Potentially Significant Impact Areas to Local Communities: Transportation and Noise and Vibration**

A. **Traffic: The DEIS Omits Mention of the Results of its Own Transportation Appendix, Which Predicts Significant Impacts to Local Traffic Conditions Even Though It Is Based on an Inadequate Analysis.**

The N-S Corridor of the Proposed Project would cross 159 roadways at-grade through five counties between Cocoa and West Palm Beach. DEIS at 4-15. The DEIS concludes – after only the briefest discussion of localized traffic impacts – that increased train traffic will “result in minor increased traffic delays at existing roadway crossings.” *Id.* at 5-11. But that conclusion is belied by the information tucked away in an appendix to the DEIS entitled “Grade Crossing Details,” which consists of a report prepared by Amec Environmental & Infrastructure, Inc., in September 2013 entitled “*Transportation and Railroad Crossing Analysis for the All Aboard Florida Passenger Rail Project from Cocoa to West Palm Beach, Florida*” (the “Amec Report”). DEIS App. 3.3-C. Even though the Amec Report is rife with methodological errors and shortcomings, it presents a bleak picture for local traffic conditions if the Proposed Project were to advance. For example, some intersection approaches would experience delays of up to 45 minutes per hour, snarling local traffic, impeding emergency vehicular movement and potentially causing other significant impacts to air quality and the socioeconomic well-being of the affected communities.⁹ See DEIS App. 3.3-C at 3-22. One can only imagine how dark the picture really would be if the analyses were conducted properly and reported accurately in the DEIS.

Close examination of the information presented in the Amec Report reveals that even based on a skewed and incomplete evaluation, there would be very significant impacts to local traffic conditions at the at-grade crossings along the N-S Corridor. For example, at the FECR grade crossing at Oslo Road in Indian River County, the Amec Report estimates that in 2016 there would be a westbound queue of 1299 feet every time a passenger or freight train passes by. *Id.* Notably, there is only 350 feet on Oslo Road between the FECR crossing and US 1. See *id.* at 3-8. Thus, the vast majority of vehicles would be backed up onto or beyond US 1, in queues that would extend hundreds of feet in both the southbound and northbound directions. Moreover, US 1 southbound at Oslo Road has a limited 150 foot right-hand turning lane and northbound US 1 at Oslo Road has two dedicated left-turn lanes each measuring 325 feet, for a total length of 650 feet. Accordingly, a 1299 foot queue is likely to consume the 350 feet on Oslo Road between the FECR crossing and US 1, the 150 foot south bound dedicated US 1 right turn lane, *and* the north-bound left turn capacity on US 1. There is no discussion about how this queue would function, and the Amec Report is devoid of any discussion of impacts on the north and southbound US 1 lanes. In addition, the Amec Report predicts that an *additional* year 2016 westbound queue of 3066 feet (for a passenger train passby, 3072 feet for a freight train passby) would form at the intersection of Oslo Road and US 1. *Id.* at 3-

⁹ For example, eastbound delays at the Oslo Road and US 1 intersection in Indian River County would be 700 second at least three or four times per hour in 2036. DEIS App. 3.3-C at 3-22.

22. As noted above, this intersection is 350 feet away from the Oslo Road and FECR crossing, but neither the DEIS nor the Amec Report make any attempt to discuss how this intersection could operate with a combined queue for both intersections that would extend almost 4400 feet.

These impacts are predicted to significantly worsen in 2036. For example, in that year the eastbound queues that are predicted to form at the intersection of Oslo Road and US 1 each time either a passenger or freight train passes by would extend more than 7000 feet -- well over a mile. *Id.* Moreover, impacts of this magnitude would not be confined to Oslo Road, or the handful of other intersections considered in the Amec Report. Rather, they can be expected up and down the entire corridor, as trains come and go more than 50 times a day.

No hint of these significant traffic impacts appears in the body of the DEIS. In fact, the document as written reports information for 2016 and 2019, and does not address potential 2036 traffic impacts reported in the Amec Report at all. *See* DEIS at 5-6 to 5-14. Likewise, the ripple effect of the long queues predicted on local intersections – on the ability of police, fire and EMS vehicles to respond to emergencies; on traffic safety; or on economic conditions in affected business districts – is not addressed in the DEIS. And nothing is said in the DEIS or its appendices about how such impacts could be mitigated or avoided.

Moreover, the analysis presented in the Amec Report is unsupported by technical data or modeling results, and is deficient in several respects. Set forth below are a few examples of the deficiencies that riddle the Amec Report.

- **The number of intersections evaluated was an inadequate sample population.** The Amec Report examined just 6% of the at-grade intersections along the N-S Corridor (10 out of 159 at grade crossings, or 2 intersections for each of the five counties that would be bisected by the N-S Corridor). DEIS App. 3.3-C at 3-1. No justification was given for why so few intersections were considered. Since every intersection is unique, a more reasonable sample size should have been selected.
- **Only half of each intersection was evaluated.** The Amec Report only examined eastbound and westbound movements through intersections, and failed to consider the impacts to the north-south movements in the four-way intersections evaluated. *See, e.g., id.* at 3-22. This is an egregious omission given that many of the intersections that would be affected by the Proposed Project involve significant regional north/south arterial roadways and there is little doubt that the predicted eastbound and westbound delays and queues would impact the north/south intersection movements, and perhaps regional mobility in general. It is standard protocol for a traffic impacts analysis to consider all movements in an intersection. Without such a full intersection analysis, it is impossible to understand the true impacts of the Proposed Project on local traffic.
- **The wrong baseline was used for impacts evaluation.** The Amec Report failed to generate “no action” traffic operations for 2016 or 2036. The impacts of the Proposed

Project should be assessed as compared to a no action condition. An appropriate no action condition would be normal traffic operations plus freight movements as compared to normal traffic operations, plus freight and passenger train operations. The increment that would be derived by comparing such scenarios should have been generated for both 2016 and 2036. However, the Amec Report presents no comparison to a typical no action condition. Instead, it used a “weighted average” approach, that discounted the impacts of the Proposed Project by averaging the delay and queue lengths that would be created by the Proposed Project with those from typical traffic operations and freight movements.

- **No impacts discussion was provided.** The Amec Report contains no discussion of the tables appearing at pages 3-1 to 3-26 within the report. Instead, it discusses the maximum crossing closure time, choosing to ignore the predicted queues and delays that would result from the closures.
- **Only the PM peak hour was modeled.** The Amec Report confined its analysis to the PM peak hour. *Id.* However, the AM peak hour (which would include school and commuter traffic) or weekend midday peak hour could well represent a worst case scenario for many intersections. All three peak hours should have been examined.
- **Downtimes, based on maximum speeds, may be underestimated.** The downtime for each crossing was estimated based on passenger trains from the Proposed Project traveling near maximum predicted speeds. *Id.* at 4-4 to 4-5. It is unknown if the maximum predicted speeds could be safely achieved and maintained along the entire length of the proposed N-S Corridor, therefore a more realistic speed should have been used that would have resulted in longer down times and a more conservative analysis.
- **Impacts for freight and passenger trains are similar.** Even though the Amec Report goes to great lengths to highlight that the proposed passenger trains will be shorter and faster than freight trains, the delay and queue impacts are very similar for a passenger train and a freight train crossing. *See, e.g., id.* at 3-22. This is not explained in the Amec Report.

The Proposed Project has the potential to disrupt traffic at intersections along the entire length of the N-S Corridor between Cocoa and Miami. Notwithstanding the flaws in the Amec Report, that study provides some sense of the magnitude of the traffic impacts that can be expected. The Board urges FRA to undertake a careful study of those potential impacts, following standard analytical methodologies, and the socioeconomic, public safety, and other impacts that could also be expected to result. Those analyses should be presented in a supplemental draft environmental impacts statement.

B. Noise and Vibration: The DEIS Failed to Follow FRA's Own Guidance in Performing Noise and Vibration Impacts Analyses, And as a Result Underestimates Potential Impacts.

The noise analysis appearing in the DEIS does not take the “hard look” that NEPA requires for a major high speed rail project in the final stages of project planning. As noted above, the analysis focuses solely on noise conditions in 2016, the year assumed for the commencement of operations, and gives no consideration to conditions in later years. Moreover, even the 2016 analysis was wholly inadequate. For example, no monitoring was performed of existing noise levels at sensitive receptors affected by the Proposed Project, and no detailed assessment was provided as to how noise levels in the vicinity of such sensitive receptors might change once high speed rail operations begin. The general calculations presented in the document provide no specific indication of whether and where significant noise impacts might occur, or what reasonably might be done to mitigate them.

As noted in the Board's Comment 3 above, the FRA Noise Manual sets forth the ground rules for the assessment of noise impacts from FRA projects under NEPA. According to that document, a “General Noise Assessment” of the sort appearing in the DEIS is to be performed “commensurate with the level of detail of available data in the early stages of major investment planning and environmental clearance.” FRA Noise Manual at 4-4. In contrast, according to the FRA Noise Manual:

[a] Detailed Noise Analysis is appropriate for assessing noise impacts for high-speed train projects after the preferred alignment and candidate high-speed train technologies have been selected. At this point, the preliminary engineering has been initiated, and the preparation of an environmental document (usually an Environmental Impact Statement) has begun. Information required to perform a Detailed Noise Analysis includes type of vehicle equipment to be used, train schedules, speed profiles, plan and profiles of guideways, locations of access roads, and landform topography, including adjacent terrain and building features.

FRA Noise Manual at 5-1.

All such information should have been readily available at this point in the planning process for Proposed Project, given the fact that AAF is planning to begin construction next year. Thus, instead of the generalized calculations presented in the DEIS, under FRA's own manual the analysis should have included:

- Identification of noise-sensitive receivers, which depend on the land use in the vicinity of the proposed project.

- Estimation (based upon measurements taken at representative locations) of the existing noise exposure at each noise sensitive receiver or cluster of receivers using the methods presented set forth in the manual.
- Determination of the technology applicable to the project: steel-wheeled high-speed or very high-speed electric (locomotive hauled or EMU), steel-wheeled fossil fuel, or maglev.
- Determination of noise exposure in terms of “sound exposure level” (“SEL”) under reference operating conditions.
- Adjustment of the subsources reference SELs to the anticipated operating conditions of the project (i.e., train consist and speed).
- Development of an SEL-versus-distance relationship for each subsources that includes the effects of shielding along the path.
- Determination of total SEL at each receiver by combining the levels from all subsources.
- Assessment of noise impact at each receiver or cluster of receivers.

Id. at Chapter 5.

The DEIS compounds the deficiencies resulting from use of the wrong methodology by departing from the approach one would expect to see in a DEIS, where project impacts are first identified and all practicable mitigation is then identified to address them. *See* FRA Noise Manual at 5-25 (“In general, mitigation options are chosen from those listed [in the FRA Noise Manual], and then relevant portions of the project noise are recomputed and reassessed to account for this mitigation.”). Instead of following this straightforward protocol, the DEIS builds mitigation into its impact analysis and notes that “159 grade crossings where severe, unmitigated impacts would occur” would be “eliminated” by a commitment to install wayside horns, hereby concluding that “the Project would have no permanent noise impacts” as a result of that commitment. DEIS at 5-46, 5-49. That conclusion is not only based upon the use of faulty methodology. It also short-circuits FRA’s obligation to consider mitigation measures other than wayside horns to mitigate the severe impacts that were mentioned in passing. According to the FRA Noise Manual, among the measures that should have been considered are vehicle noise specifications, wheel treatments, vehicle treatments, vehicle body design, guideway support, operational restrictions, path treatments, noise buffers and ground absorption. These alternative and/or additional measures should have been considered by FRA. FRA Noise Manual at 5-25 to 5-31.

8. Section 106 and Historic Resources: Localities were Excluded from the Section 106 Consultation and Significant Historic and Archeological Resources were Ignored by the DEIS.

Under Section 106 of the National Historic Preservation Act, P.L. 89-605, codified at 16 U.S.C. § 470 *et seq.* (“NHPA”), federal agencies must take into account the effect of their undertakings on historic resources that are either listed or eligible for listing on the National Register of Historic Places (the “National Register”). The federal agency must do so in accordance with procedures

adopted by the Advisory Council on Historic Preservation (the “Advisory Council”) appearing at 36 C.F.R. Part 800 (the “NHPA Regulations”), unless the agency substitutes the NEPA procedures for those required under the NHPA. *See* 36 C.F.R. § 800.8(c). Here, FRA elected not to substitute NEPA procedures for those of the Advisory Council. *See* DEIS App. 4.4.5-A.2 at 1 (“M. Hassell stated that FRA has decided not to use the substitution approach for streamlining the NEPA and NHPA Section 106 consultation process.”).¹⁰

The NHPA Regulations require a federal agency to engage in a consultation process to identify historic properties potentially affected by the undertaking, assess its effects on those resources, and seek ways to avoid or minimize any adverse effects that are identified. The NHPA Regulations state clearly that “[a] representative of a local government with jurisdiction over an area in which the effects of an undertaking may occur *is entitled to participate as a consulting party*.” 36 C.F.R. § 800.2(c)(3) (emphasis added). Accordingly, the regulations provide that the “[t]he [federal] agency *shall* invite any local governments ...” to join in the consultation. *Id.* § 800.3(f)(1) (emphasis added). Notwithstanding such clear and explicit mandates, FRA did not invite the County to participate in the Section 106 consultation for the Proposed Project. On the contrary, it appears that a conscious decision was made to *not* invite the participation of the County and scores of other affected local governments. Thus, the DEIS states that only “four Certified Local Governments (CLG) and two local informants were ... contacted regarding information on locally designated historic resources.” DEIS at 4-125. The reason for this, according to the minutes of the March 28, 2013 meeting between the State Historic Preservation Office (“SHPO”) and AAF, is that SHPO “felt that ... due to past consultations with affected communities (i.e., West Palm Beach, Fort Lauderdale, Miami) additional separate meetings are unnecessary.”¹¹ DEIS App. 4.4.5-A.1 at 2.

Thus, only a handful of “certified” local governments were invited to participate in the consultation, leaving numerous other local jurisdictions (which – like Indian River County – are not certified) out of the discussions. As noted in minutes for a July 8, 2013 SHPO-AAF meeting that included the few consulting parties, including FRA, “[f]or the prior EA, county and local historic preservation staff were invited” to participate in the consultation, but for this phase no such invitation would be extended because the “project will not involve new station locations that would extend into historic districts.” DEIS, App. 4.4.5-A.2 at 1.

The exclusion of virtually all local authorities from the Section 106 consultation was wholly improper. There is no basis in the NHPA Regulations to limit participating local governments to

¹⁰ The DEIS states on page 4-124 that “FRA is *coordinating* compliance with Section 106 with preparations of the DEIS” (emphasis added). Under the NHPA Regulations, “coordination” is distinct from “substitution.” When the historic review is coordinated with the NEPA review, the Part 800 NHPA procedural requirements must be satisfied, along with those under NEPA. When the federal agency seeks to streamline its review by substituting NEPA procedures, those procedures are followed “in lieu” of those required under the NHPA Regulations.

¹¹ The NHPA Regulations require FRA to consult with SHPO *and* representatives of local government with jurisdiction over an area in which the effects of the Proposed Project may occur. 36 C.F.R. § 800.2(c)(1), (3). They do not contemplate cutting localities out of the process because SHPO advises that local consultation is “unnecessary.”

those that are “certified.”¹² Moreover, it cannot be argued that the NEPA scoping process provided a hypothetical opportunity for local governments to provide input regarding the effects of the Proposed Project on cultural resources, as scoping is no substitute for active participation in a Section 106 consultation. It should be noted that Indian River County, like most localities without a proposed station, were not directly notified about, or invited to participate in, the scoping process. *See* DEIS App. 8.1-B at App. B. FRA could not have expected localities to infer from the generic scoping notice that their only opportunity to provide the information on potentially affected resources, adverse effects and mitigation measures would be to attend and testify at the scoping sessions. This is especially so because in Indian River County’s case, such sessions were not even convened in the county. The publication of a scoping notice does not satisfy FRA’s regulatory obligation to invite local authorities to join in a Section 106 consultation.

Moreover, FRA was not justified in excluding multiple local authorities from the consultation on the basis that the Proposed Project will not affect cultural resources. On the contrary, one of the primary reasons for including local authorities in the process is to assist in the identification of resources that might otherwise be overlooked. That is exactly what happened here: in the absence of input from informed local authorities, the parties failed to identify a number of significant cultural resources or the effects that the Proposed Project would have on those resources. For example, no mention is made in the DEIS of two significant archaeological sites that may lie in or adjacent to the FECR right-of-way in Indian River County:

The Vero Man site. This site is located along the Main Relief Canal (Van Valkenburg Creek), where project work would be performed to upgrade an existing railroad bridge, and to construct a second track. Archaeologists from Mercyhurst University, the local Old Vero Ice Age Committee, and scientists from the University of Florida have been working at this site over the past few years. Significant artifacts have been uncovered during recent excavations that support the theory that this area was important to a large number of extinct species and the Paleo-Indians that hunted them. The timeline has been established at 12,000 to 14,000 years ago and may be even older. The archaeological activities, research, and continued excavations are providing valuable information about the earliest people to inhabit Florida. The Vero Man site – Florida Master Site File (“FMSF”) #8IR09 - has been determined to be eligible for the National Register by the Florida SHPO. Evidence of the presence of Paleo-Indians, extinct species, possibly hunting weapons, and an authenticated prehistoric art etching may make this site a potential “World Site.”

The Gifford Bones Site. This site is located at the North Relief Canal/Houston Creek, and is recorded as FMSF #8IR07 and #8IR08. FMSF #8IR07 is noted as

¹² It should be noted that the NHPA regulations governing consultation do not even mention certified local governments. 36 C.F.R. Part 800. By being “certified” a local government can play a more direct role in nominating resources to the National Register and may be eligible to receive certain historic preservation funds, *see* 36 C.F.R. § 61.6(f), but whether a locality is certified has no bearing on the Section 106 process and clearly is not a prerequisite to being invited to join in a Section 106 consultation.

“inside of drainage ditch” where bones of ground sloth, camel, mastodon and other animals were found. At FMSF #8IR08 a stemmed flint projectile point was “[d]ug out of [the]top of ... brown sand in [the] new canal north of Gifford ...”. Rouse (1951) at 171. This narrow canal on both the west and east sides of the railroad bridge and Old Dixie Highway Bridge has yielded fossilized bones for decades.

Since it did not identify these significant historical resources in the course of the Section 106 process, FRA failed to assess whether project construction would affect these resources by disturbing *paleo* artifacts lying beneath the surface; whether vibration from increased freight and new passenger operations could damage those artifacts; and whether the lateral expansion of active rail operations would foreclose or hinder future artifact recovery efforts. Likewise, the DEIS failed to address ways to avoid, minimize or mitigate any adverse effects on these resources.

In addition, the DEIS fails to identify at least two affected architectural resources within Indian River County. Thus, nothing is said in the document about the Old Town Sebastian Historic District East or Old Town Sebastian Historic District West. There are over 40 contributing sites or buildings in these two districts, both of which are listed on the National Register. By failing to identify these districts, the DEIS neglected to mention that the FECR corridor bisects them, or to account for the contextual effects (such as noise, vibration, safety and visual impacts) that increased rail traffic associated with the Proposed Project would have on them. Nor did it address the measures that could be implemented to address those effects.

The omissions from the Section 106 Historic Resources analysis noted in these comments provide a few examples of the deficiencies resulting from the exclusion of local authorities from the Section 106 consultation. It is highly likely that additional resources located within other jurisdictions along the corridor were also overlooked as a result of the exclusionary consultation process that was employed. For that reason, FRA should reinitiate the Section 106 consultation by extending invitations to all affected local authorities and other parties entitled to participate under the NHPA Regulations.

9. Section 4(f): The Section 4(f) Evaluation Failed to: Identify Significant Resources; Evaluate How the Proposed Project Would Use Those Resources; Whether There are Any Feasible and Prudent Alternatives To Those Uses; and Whether All Possible Planning Has Been Taken to Minimize Harm.

Section 4(f) of the Department of Transportation Act of 1966, prohibits USDOT agencies, including FRA, from approving a project if it “uses” a Section 4(f) Resource¹³ unless (i) there is no prudent and feasible alternative to that use, and (ii) the project includes all possible planning to

¹³ Section 4(f) protects the following resources: publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge or site). 49 U.S.C. § 303(c).

minimize harm to the Section 4(f) Resource. Pub. L. 89-670 (1966) (now codified at 49 U.S.C. § 303(c)). A project's "use" of a Section 4(f) Resource can either be direct, by physically impacting a resource, or "constructive", when a project's proximity impacts are severe enough to impair a Section 4(f) Resource. Regulations codified at 23 C.F.R. Part 774¹⁴ and the FRA NEPA Guidance establish the process for FRA's compliance with Section 4(f).

As discussed in the Board's Section 106/Historic Resources Comment above, FRA failed to consult with local governments in the Section 106 process, and as a result, failed to identify in the DEIS significant historic resources listed on the National Register. These historic resources are protected Section 4(f) Resources, and the potential for the Proposed Project to "use" them must be assessed in the Section 4(f) Evaluation. *See* 23 C.F.R. § 774.11(e), (f). In particular, the Section 4(f) Evaluation must assess whether there are prudent and feasible alternatives to any use of these resources, and ensure that the Proposed Project includes all possible planning to minimize harm to them. Without correcting these substantial omissions -- and addressing any and all other Section 4(f) Resources that were overlooked in the analyses performed thus far -- FRA may not approve the Section 4(f) Evaluation.

10. Coastal Zone Management Act Consistency: The DEIS does not Provide a Basis for Determining Consistency with the Florida Coastal Zone Management Program.

The Florida Coastal Management Program ("FCMP") was approved by the U.S. Department of Commerce pursuant to the Federal Coastal Zone Management Act ("CZMA"), 16 U.S.C. § 1451 *et seq.*, in 1981. Florida Department of Environmental Protection ("FDEP"), "*Florida Coastal Management Program Guide*" ("FCMPG") at 6 (6/26/2014). As a result, under the CZMA all federal activities affecting a coastal use or resource in Florida, including the provision of RRIF funding, must be consistent with the FCMP "to the maximum extent practicable." Florida Statutes Chapter 380; 16 U.S.C. §§ 1456(c)(1), (c)(2); 15 C.F.R. § 930.50. The FDEP is responsible for evaluating whether federal activities are consistent with the FCMP, and must either concur or object to a consistency certification submitted for the Proposed Project. Florida Statutes § 380.23; 15 C.F.R. §§ 930.62, 930.63. While FRA may intend for FDEP to rely on the information provided in the DEIS in making this determination, it is so lacking in substance as to preclude FDEP from relying upon it.

There is no meaningful discussion in the DEIS of whether and how the Proposed Project is consistent with the 24 statutory programs that comprise the FCMP. Instead, the document presents a "Draft Consistency Determination" consisting of Table 5.2.5-1, DEIS at 5-65, that includes a column with only the most cursory discussion of consistency. One example well illustrates this point. The FCMPG identifies Florida Statutes Chapter 267, Historical Resources as an "enforceable

¹⁴ While the Section 4(f) Regulations are promulgated by FHWA and FTA, FRA has recognized them in the DEIS as being applicable to the Proposed Project. *See, e.g.*, DEIS at 6-3.

policy” for purposes of federal consistency. FCMPG at 13. That statute declares that “[t]he rich and unique heritage of historic properties in this state, representing more than 10,000 years of human presence, is an important legacy to be valued and preserved for present and future generations.” Florida Statutes § 267.061(1)(a). Accordingly, state agencies are directed to avoid taking or assisting in any action that would substantially alter in a way that would adversely affect the character, form, integrity, or other qualities which contribute to [t]he historical, architectural, or archaeological value of [a historic] property” unless there is “no feasible and prudent alternative” and timely steps are taken either to avoid or mitigate the adverse effects, or to undertake an appropriate archaeological salvage excavation” Florida Statutes § 267.061(2). DEIS Table 5.2.5-1 dismisses any concerns with respect to this policy with the statement that “[b]ased on the information available, the Project would have no adverse effect on archaeological sites along the N-S corridor.” DEIS at 5-68. However, as discussed in the Board’s Section 106/Historic Resources Comment above, the cultural resources analysis presented in the DEIS was prepared without any meaningful consultation with local authorities, and entirely missed several significant historic resources in Indian River County alone. Since the conclusion set forth in DEIS Table 5.2.5-1 is not backed up by the facts, it provides no basis for a determination that the Proposed Project is consistent with this enforceable policy. The treatment of other enforceable policies in DEIS Table 5.2.5-1 is equally conclusory and unsubstantiated. As a result, the consistency analysis presented in the DEIS cannot serve as a basis for a determination of consistency with the FCMP.

11. Consistency with Scoping: The Analyses Committed to in the Scoping Report are Absent from the DEIS

In order to assure that the scope of a DEIS covers all matters of environmental concern identified by an agency in light of comments made by the public, the CEQ regulations clearly require that “[d]raft environmental impact statements ... be prepared in accordance with the scope decided upon in the scoping process.” 40 C.F.R. § 1502.9(a). Contrary to this mandate, the DEIS deviates in critical respects from commitments made by FRA in the scoping report issued for the Proposed Project on June 28, 2013 (the “Scoping Report”). DEIS App. 8.1-B.

For example, with respect to alternatives the Scoping Report indicates that “[t]he EIS will consider additional/alternative stations, including locating stations closer to city/government center[s]. This may include stations in Cocoa/Port Canaveral, Fort Pierce, Melbourne, Port Canaveral, Stuart, St. Lucie, and other cities along the Proposed Project corridor. *The EIS will also consider alternative rail alignment locations west of the current corridor, including parallel to the Florida Turnpike.*” *Id.* at 18 (emphasis added). Notwithstanding these commitments, the DEIS offers no substantive analysis of either topic. The Board assumes that by promising consideration of alternative routes FRA intended to include in the DEIS something more than the application of AAF’s profit-based criteria to screen all alternative routes out of substantive environmental review. Yet as discussed above, such a substantive analysis was omitted from the DEIS. Moreover, no real consideration at all was paid to additional stations along the N-S corridor.

In addition, the Scoping Report commits that “[t]he EIS will assess the primary and secondary (or induced) social and economic impacts of the [Proposed] Project, which may include relocating residences and businesses, changes in business patterns, employment, local school enrollment, community infrastructure, property values, and tax valuation/revenues. *Both local and regional social and economic impacts will be analyzed.*” *Id.* at 20 (emphasis added). Nevertheless, as discussed in the Board’s Comment 6, above, the DEIS failed to include any analysis whatsoever of the *localized* impacts that construction and operation of the Proposed Project would have on the socioeconomic conditions in affected commercial and residential areas. This is a glaring omission in light of: (i) the disruption that will be caused by construction activities associated with a major infrastructure project cutting through vibrant downtown areas and residential neighborhoods; (ii) the permanent barrier that would be created by operation of a highly active rail line separating commercial and residential neighborhoods; and (iii) the potential socioeconomic impacts of traffic congestion on the roadways proximate to the grade crossings.

Another commitment in the Scoping Report is that “[t]he EIS will consider cumulative impacts of all resources, to assess the impacts of the Project in conjunction with other rail projects.” *Id.* at 21. Yet as discussed in the Board’s Comment 2, above, contrary to that commitment the DEIS explicitly rejects consideration of the cumulative impacts of the Tri-Rail Coastal Link project, notwithstanding the availability of the information needed to do so.

The above examples illustrate how far the DEIS strayed from the scope FRA promised to prepare at the conclusion of the scoping process. The Board urges the agency to now keep those commitments in a supplemental DEIS.

List of Exhibits Provided Electronically to the Federal Railroad Administration

Exhibit A	United States Department of Transportation, Order 5610.1C “ <i>Procedures for Considering Environmental Impacts</i> ” (9/18/1979).
Exhibit B	Federal Railroad Administration, “ <i>On-Site Engineering Report – Part 2 for All Aboard Florida</i> ” (9/23/2014).
Exhibit C	Florida High Speed Rail Authority, “ <i>Orlando-Miami Planning Study</i> ” (3/2003).
Exhibit D	Council on Environmental Quality, “ <i>Considering Cumulative Effects under NEPA</i> ” (1/1997).
Exhibit E	South Florida Regional Transportation Authority and All Aboard Florida, “ <i>Commuter Railroad Service Letter Agreement</i> ” (4/25/2014).
Exhibit F	Florida Department of Transportation, “ <i>Final Conceptual Alternatives Analysis/Environmental Screening Report</i> ” (2009).
Exhibit G	Florida Department of Transportation, “ <i>Detailed Environmental Screening Report</i> ” (11/2010).
Exhibit H	Florida Department of Transportation, “ <i>Final Alternatives Analysis Report</i> ” (10/2011).
Exhibit I	Florida Department of Transportation “ <i>Final Preliminary Project Development Report</i> ” for the Tri-Rail Coastal Link (4/2014).
Exhibit J	Tri-Rail Coastal Link Project website (http://tri-railcoastallink.com/frequently_asked_questions.html) (last accessed on 11/25/2014).
Exhibit K	Orlando Business Journal, “ <i>3 Reasons Why All Aboard Florida in Orlando Was Delayed</i> ” (7/9/2014).
Exhibit L	Executive Office of the President, <i>The President’s Climate Action Plan</i> (6/2013).
Exhibit M	United States Department of Transportation, “ <i>Policy Statement on Climate Change Adaptation</i> ” (6/2011).
Exhibit N	United States Department of Transportation, “ <i>Climate Adaptation Plan: Ensuring Transportation Infrastructure and System Resilience</i> ” (5/2013).
Exhibit O	United States Department of Transportation, Order 5650.2 “ <i>Floodplain Management and Protection</i> ” (4/23/1979).



Memorandum

To: Mr. Chris Mora

From: Ms. Jill Grimaldi, BCES

Date: November 14, 2014

Subject: All Aboard Florida

On September 19, 2014, the Federal Railroad Administration (FRA) released the Draft Environmental Impact Statement (DEIS) for the All Aboard Florida (AAF) high-speed rail project's Phase 2 (West Palm Beach to Orlando segment). FRA is serving as the lead Federal Agency for the review of the project. An Environmental Assessment (EA), presumably using similar methodology, was completed for the Miami to West Palm Beach segment (Phase 1) of the project in 2012. The FRA issued a Finding of No Significant Impact (FONSI) for Phase 1. A supplemental EA is under review (concurrently with the DEIS) for the revised location of a maintenance facility. The supplemental EA has no bearing on the DEIS review.

CDM Smith has conducted a thorough review of the DEIS. It should be noted that CDM Smith's review comments focus solely on the information presented in the DEIS that pertains to the portion of the Proposed Project within Indian River County's boundaries (including impacts on municipalities). The detailed summary is provided as **Attachment 1** to this memorandum.

After completing the review of the DEIS, CDM Smith has concluded that the evaluation has significant deficiencies when compared to the requirements of the National Environmental Policy Act, which outlines the requirements for an Environmental Impact Statement. The following presents a summary of the deficiencies. Additional discussion on each item is presented in Attachment 1.

Conclusions

Upon review of the DEIS, CDM Smith concludes that the document is incomplete and lacking in the following primary areas:

1. No impacts outside the FECR ROW were included.
2. As presented, the alternatives analysis appears to be insufficient.
3. Noise and vibration impacts assessment is not complete.

- a. Vibration data is lacking.
 - b. General methodologies were used instead of the detailed assessment called for under the FRA manual.
 - c. Noise levels are underestimated when compared to the existing conditions data collected by CDM Smith.
 - d. Future condition predicts a near doubling of noise levels.
4. Construction/temporary impacts are not addressed (other than minimal construction noise data).
5. Traffic evaluation is insufficient.
 - a. Number of crossings evaluated is not adequate.
 - b. Very significant queuing impacts will result from the Project that were not properly disclosed.
 - c. Traffic projections not based on actual traffic counts kept by Indian River County (updated annually).
 - d. AM peak not included.
 - e. Delay and queuing calculations are unclear.
 - f. RTC model results do not include impacts to at-grade crossings or the results of multiple trains at rail crossings.
 - g. No mention of future greenway plans (for bicycle and pedestrian use).
 - h. No data given on the projected emergency vehicle impacts for at-grade crossings; no indication of the local emergency routes that were input into the RTC model to render a solution on possible delay impacts.
6. Wetlands analysis is incomplete. Evaluation must include potential impacts resulting from improvements made at crossings outside of the existing ROW.
7. Threatened and Endangered Species analysis is incomplete. Evaluation must include potential impacts resulting from improvements made at crossings outside of the existing ROW.
8. EJ requirement for community outreach is insufficient; specifically, outreach to disadvantaged communities was not adequate.
9. Regarding Coastal Zone Management, enforceable policies 553 and 597 were not addressed.
10. Cultural Resource evaluation is grossly lacking.
 - a. No mention was made of the historic districts or dozens of historic sites.

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- b. Local governments/groups/individuals as Section 106 Consulting Parties.
- c. No archaeological survey appears to have been conducted for portions of the project APE.
- d. No vibration analysis information provide as it pertains to cultural or archaeological sites.

In conclusion, CDM Smith believes that the evaluation included in the DEIS is incomplete and recommends that a supplemental DEIS be required prior to issuance of a Record of Decision by the FRA.

File: 6706-104005

cc: Dylan Reingold
Kate Cotner
Jane Wheeler

Executive Summary

Upon review of the DEIS, CDM Smith concludes that the document is incomplete and lacking in the following primary areas:

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3. Noise and vibration impacts assessment is not complete.
 - a. Vibration data is lacking.
 - b. General methodologies were used instead of the detailed assessment called for under the FRA manual.
 - c. Noise levels are underestimated when compared to the existing conditions data collected by CDM Smith.
 - d. Future condition predicts a near doubling of noise levels.
4. Construction/temporary impacts are not addressed (other than minimal construction noise data).
5. Traffic evaluation is insufficient.
 - a. Number of crossings evaluated is not adequate.
 - b. Very significant queuing impacts will result from the Proposed Project that were not properly disclosed.
 - c. Traffic projections not based on actual traffic counts kept by Indian River County (updated annually).
 - d. AM peak not included.
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8. EJ requirement for community outreach is insufficient; specifically, outreach to disadvantaged communities was not adequate.
9. Regarding Coastal Zone Management, enforceable policies 553 and 597 were not addressed.

10. Cultural Resource evaluation is grossly lacking.

- a. No mention was made of the historic districts or dozens of historic sites.
- b. Local governments/groups/individuals as Section 106 Consulting Parties.
- c. No archaeological survey appears to have been conducted for portions of the Proposed Project APE.
- d. No vibration analysis information provide as it pertains to cultural or archaeological sites.

In conclusion, CDM Smith believes that the evaluation included in the DEIS is incomplete and recommends that a supplemental DEIS be required prior to issuance of a Record of Decision by the FRA.

Section 1

General Comments

1.1 Background

The National Environmental Policy Act (NEPA) was signed into law on January 1, 1970. NEPA establishes “national environmental policy and goals for the protection, maintenance, and enhancement of the environment and provides a process for implementing these goals within the federal agencies.”

From the U.S. Environmental Protection Agency’s (U.S. EPA) NEPA website, “Title I of NEPA contains a Declaration of National Environmental Policy which requires the federal government to use all practicable means to create and maintain conditions under which man and nature can exist in productive harmony. Section 102 requires federal agencies to incorporate environmental considerations in their planning and decision-making through a systematic interdisciplinary approach. Specifically, all federal agencies are to prepare detailed statements assessing the environmental impact of and alternatives to major federal actions significantly affecting the environment. These statements are commonly referred to as environmental impact statements (EIS).”

On September 19, 2014, the Federal Railroad Administration (FRA) released the Draft Environmental Impact Statement (DEIS) for the All Aboard Florida (AAF) high-speed rail project’s Phase 2 (“Proposed Project”). FRA is serving as the lead Federal Agency for the review of the Proposed Project. An Environmental Assessment (EA), presumably using similar methodology, was completed for the Miami to West Palm Beach segment (Phase 1) of the project in 2012. The FRA issued a Finding of No Significant Impact (FONSI) for Phase 1. A supplemental EA is under review (concurrently with the DEIS) for the revised location of a maintenance facility. The supplemental EA has no bearing on the DEIS review.

CDM Smith has conducted a thorough review of the DEIS. It should be noted that CDM Smith’s review comments, focus solely on the information presented in the DEIS that pertains to the portion of the Proposed Project within Indian River County’s boundaries (including impacts on municipalities).

1.2 General Comments

The DEIS limits the review of impacts to those activities being planned within the existing right-of-way (ROW) for the Florida East Coast Railroad (FECR), when in fact, the more significant local impacts would fall outside of the corridor at the individual roadway crossings (traffic control and signalization improvements) and bridge crossings. In general, FECR maintains a 100 foot ROW throughout Indian River County. CDM Smith was notified during the diagnostic field evaluation that intersection improvements would include the addition of 100 foot long traffic separating medians on each side of the crossing to address safety requirements for high speed rail projects. This adds up to 200 feet of additional impacts at each of the intersections where the median installation is feasible for the given crossing geometry (exit gates/4-quadrant gates will be used where medians cannot be accommodated). The addition of these medians, at many of the crossings, will require road widening, filling of stormwater swales/ditches, relocation of overhead and underground utilities and potential traffic impacts from shortened queue in turn lanes.

The diagnostic report provided via email by Indian River County staff outlines some of the intersection improvements being proposed; however, this information is not presented in the DEIS. Therefore, the DEIS should be considered incomplete due to the lack of information addressing impacts outside of the ROW.

The DEIS is also silent on the potential impacts from construction activities. The document does not identify construction lay-down or staging areas, information on construction sequencing or duration, dust control measures, or the potential noise and vibration impacts to archaeological or historical sites along the corridor within the Area of Potential Effects (APE).

In addition to the missing construction and intersection improvement impacts, the following general comments were noted during CDM Smith's review:

1. The presentation of the Miami to West Palm Beach segment (Phase 1) separate from the remaining segments appears to be a clear case of segmentation (i.e. Phase 1 was reviewed and approved independently of and ahead of Phase 2). For a project to be segmented under NEPA, AAF would have had to demonstrate "Independent Utility" in order for project components to be reviewed and considered separately. CDM Smith is not convinced AAF has demonstrated "Independent Utility," and would request further documentation from FRA that this process was undertaken in accordance with NEPA requirements.
2. AAF applied for federal funds from FRA through the Railroad Rehabilitation and Improvement Financing (RRIF) program. Compliance with the NEPA is a prerequisite for approval of the RRIF loan application. CDM Smith also reviewed the RRIF loan application for the purpose of confirming consistency between the documents.
3. The Proposed Project as analyzed in the DEIS is assumed to include 5 additional passenger train sets; 16 round-trip trips (32 one-way trips). The DEIS does not account for the increase in freight traffic that is noted in the RRIF loan application or the potential for increased passenger rail traffic over time.
4. The U.S. Coast Guard (USCG) cooperating agency acceptance and jurisdiction determination are included, but the U.S. Army Corps of Engineers (USACE) and Federal Aviation Administration (FAA) documents are not included.
5. The DEIS draws conclusions throughout without adequate justification. For example, the document concludes that no significant localized traffic impacts would result from operation of the Proposed Project; however, Appendix 3.3 C indicates that queues stretching for more than a mile would occur at least 4 times an hour at certain area intersections. Such impacts, which could occur all along the corridor of the Proposed Project, were not appropriately addressed.

1.3 Indirect and Secondary Impacts

The DEIS concludes that there will be "no induced growth" as a result of the Proposed Project; however, there are direct statements to the contrary within the DEIS. For example, Table 5.2.5-1 states that, "The project would provide linkages between regional and statewide multi-modal transportation networks and promote commercial development within the vicinity of transit systems" and "The Project would have an indirect beneficial effect on future business opportunities and would likely promote tourism in the region." Section 5.1.2.3 states "The three proposed stations for the WPB-M Corridor (in West Palm Beach, Fort

Lauderdale and Miami) may result in secondary effects such as creating potential for development and redevelopment outside the development directly associated with the stations. This additional development may also create impacts such as induced traffic generated by those developments.” This statement contradicts Section 5.2.1.3, which states “The areas surrounding the proposed stations are already developed; the Project is not anticipated to result in induced growth or development that could generate additional emissions of criteria pollutants, and would not result in indirect or secondary effects to air quality.”

1.3 Permitting and Regulatory Reviews

The DEIS fails to include documentation that USACE and FAA agreed to act as cooperating agencies for purposes of reviewing the Proposed Project. The NEPA-required cover page of the DEIS lists USACE, USCG and FAA be cooperating agencies. A “cooperating agency” is an agency that has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposal (or a reasonable alternative) and will typically have some responsibilities for the analysis related to its jurisdiction or special expertise (See 40 CFR 1501.6 and 40 CFR 1508.5). Page 1-5 of the DEIS indicates that USACE was asked to participate as a cooperating agency and USACE agreed; there is a similar statement regarding FAA’s involvement on page 1-6. No cooperating agency documentation was provided for either the USACE or the FAA.

An EIS should include detailed statements concerning the environmental impacts of the proposed project; not bypass this obligation to other permitting processes. On October 7, 2014, the USACE issued a notice stating that, “The applicant has estimated that the north/south component of the proposed railway would occur within the existing FECR ROW and would only require minor impacts to waters of the United States (wetlands and surface waters) at various locations along the corridor. The Corps has initially determined these minor improvements could be verified in accordance with the Corps’ Nationwide Permit (NWP) program. Verification by NWP would not require further public coordination.” The notice further stated that USACE will use the final EIS as the NEPA document for issuance of the NWP.

Additional discussions with the USACE Project Manager indicated that authority for review of the proposed bridge improvements and replacements along the North-South (N-S) segment would be delegated to the USCG, in accordance with Section 9 of the Rivers and Harbors Act. Section 9 states that a USACE permit may still be required pursuant to Section 404 of the Clean Water Act if the construction of a bridge over a navigable waterway requires the discharge of dredged and/or fill material into waters of the United States. Without preliminary design plans for the Proposed Project, it is difficult to evaluate the extent of required dredge and fill activities, and therefore to what extent USACE involvement is required.

In addition to USACE and USCG authority, local permits will be required for the proposed bridge replacements and expansions. The Indian River Farms Water Control District (IRFWCD) maintains the North, Main and South Relief Canals. The referenced canals are listed in Appendix 5.3.6-B6 of the DEIS (ESA Section 7 Consultation 20140129) to be upgraded (not replaced). CDM Smith spoke with the superintendent of the IRFWCD, who indicated that there has been no contact or coordination to date between the AAF project team and IRFWCD regarding permit or maintenance requirements. IRFWCD further indicated that the existing support for the North Relief Canal Bridge is in a state of disrepair with significant washouts and undermining being observed on the southern support.

Section 2

Affected Environment and Environmental Consequences

The majority of the existing environmental conditions and impacts are summarized in Sections 4 and 5 of the DEIS, and CDM Smith's review of those two sections is presented below.

2.1 Traffic and Transportation Impacts

2.1.1 Railroad Crossings Selected

The DEIS failed to consider a representative sample of railroad crossings in Indian River County and thus the impact has not been adequately analyzed or addressed. Two out of 30 crossings in Indian River County were selected based on the largest 2012 Average Annual Daily Traffic (AADT) on roads crossing the rail line. Oslo Road had a 2012 AADT of 14,400 and 19th Place an AADT of 11,500. Although these roads have the largest AADT, they may not necessarily have the longest delay and queue caused by train activity. Two out of 30 intersections represents an inadequate sample size.

2.1.2 Traffic Projections

The DEIS failed to follow FDOT guidance by not conducting actual intersection turning movement counts and not conducting an analysis using those actual counts. The DEIS estimated peak hour intersection traffic at the two Indian River County crossings by applying a K (daily traffic occurring in the peak hour) and D (directional distribution) factor to the AADT values. AAF then applied a turning movement volume distribution (left, through, and right) to the PM peak hour traffic to estimate intersection traffic. The DEIS failed to calculate AM peak hour conditions completely. This methodology, according to the Railroad Crossing Analysis report for All-Aboard-Florida, is found in the 2009 Florida Department of Transportation (FDOT) Quality/Level of Service Handbook. CDM Smith's concern with this methodology is that the estimated peak hour intersection traffic volumes could be significantly different than actual traffic, and that the differences are compounded when a growth rate is applied. It would be more appropriate to conduct actual intersection turning movement counts and conduct analysis using those actual counts (see FDOT 2014 Project Traffic Forecasting Handbook Ch.6, Section 6.5 paragraph).

Year 2016 and 2036 traffic projections were based on a one percent annual growth rate. The report states this was based on historical traffic data and is conservative because much of the corridor has seen negative growth over the last several years. It would be more appropriate to utilize the regional Travel Demand Model to project future traffic conditions.

2.1.3 Delay and Queuing Analysis

The DEIS does not properly analyze the delay and queuing calculations. Table 3-10 in the rail crossing report presents some confusing information. First, the automobile delay and queue calculations caused by a passenger and freight train are almost the same, but CDM Smith understands that a freight train is much longer and will create a longer "gate down" condition. Second, CDM Smith is not sure how the delay and queue calculations are done. At Oslo Road and US 1 the eastbound delay and queue at the intersection is

much longer than at the railroad crossing. For example, the year 2036 eastbound delay at the intersection is projected to be 656.2 seconds (10 minutes 56 seconds) (passenger train) versus 87.5 seconds at the railroad crossing. It seems that eastbound traffic would be delayed a similar amount of time whether it is due to the rail gate down condition or the traffic signal at US 1 being preempted by the train. Furthermore, the northbound left and southbound right turn delays and queues for traffic turning from US 1 onto Oslo Road are not shown. It is assumed that the northbound and southbound through movements on US 1 will have a green indication while a train is crossing Oslo Road, but all other movements at the US 1 and Oslo Road intersection oriented towards westbound Oslo Road will be prohibited. This could be substantial and create safety problems at the intersection. For example, the northbound US 1 dual left turn lane will likely reach its capacity of 26 vehicles or approximately 650 feet while a train is crossing Oslo Road such that excess vehicles are blocking the inside through lane. As the left turn lane demand increases, motorists may maneuver unsafely in and out of the lane as they attempt to travel westbound. Additionally, the southbound US 1 right turn lane at Oslo Road is approximately 150 feet long and can store approximately six vehicles. While a train is crossing Oslo Road, this right turn lane will likely reach its capacity. Finally, it is not clear where the westbound projected queue at the Oslo Road and US 1 intersection would be. For example, at that intersection, the westbound queue is projected to be 4,099 feet in 2036. At the FEC railroad crossing the westbound queue is projected to be 1,594 feet. If the 4,099 foot queue would consume the US 1 lanes feeding westbound Oslo Road, the impact on US 1 would be significant.

As the results appear flawed, the FRA should review the Synchro output to determine assumptions and more details about their methodology. It is not clear where or if the consultant got the actual traffic signal splits and offsets (traffic signal cycle lengths and timing).

The DEIS fails to give an adequate delay and queuing analysis for two trains crossing simultaneously. The results of the delay analysis shown in Table 3-10 and 3-11 seem to represent one train crossing. CDM Smith understands that two trains could cross a road consecutively and that would lengthen the delay and queue. In effect, back-to-back trains crossing would compound the impact even more because queues from the first train would not have a chance to dissipate before the second train arrived.

CDM Smith believes that FRA must reexamine the appropriateness of the weighted average shown in these tables. The weighted average of delay, queue, and LOS does not provide meaningful information.

The DEIS failed to provide any mitigation for the long delays created by the rail crossing delays. The mitigation could include improvements to US 1 or the perpendicular crossing streets in the form of additional turn lanes, additional through lanes, or improved traffic signal equipment. Other potential mitigation could include improvements to the overall street network to relieve congestion caused by train crossings, or grade separating some of the railroad crossing to provide relief.

2.1.4 Local Traffic Impacts

The frequency projections of freight and passenger trains along the N-S Corridor identified in the DEIS would be anticipated to cause delays at one or multiple at-grade crossings simultaneously through Indian River County, however the DEIS states that there may be minor increased traffic delays at existing at-grade crossings. The report also states there may be delays to trains on a “shared use” environment (both passenger and freight service) which will be controlled by the Train Dispatcher as shown on pages 3-4 and 3-5. There is mention of installing additional passing tracks and from our understanding there are no existing passing tracks within Indian River County. With both the frequency projections of freight and passenger trains along the N-S Corridor it is safe to assume delays could increase at one or multiple at-

grade crossings simultaneously through Indian River County. The train speeds as shown on Tables 5.1.3-1 & 5.1.2-4 for both passenger and freight appear to assume the speeds will be constant throughout the N-S Corridor and/or counties. This assumes all the existing and proposed track length through the counties can accommodate the stated speed and that no trains will require crossing over to the adjacent track or stopping within Indian River County.

The DEIS fails to use the proper model for impacts to at-grade crossings or the results of multiple trains at rail crossings and fails to adequately address mitigation for such impacts. The DEIS does state using Rail Traffic Controller (RTC) model is an acceptable method to predict train movements; however, the report stated results of this model for bridge closures over navigable waterways, but not for impacts to at-grade crossings or the results of multiple trains at rail crossings. The software will provide time-table and track occupancy results and animation (see www.berkelysimulation.com) and take into account speed. The report does mention the addition of passing tracks and or universal crossovers (pg. 3-37) to accommodate trains passing each other; however, there are no indications where these may occur. The DEIS does not present design plans to identify passing options. The DEIS does state there will be adverse environmental effects to at-grade crossings and that each crossing will be reviewed and mitigation measures installed to reduce these impacts (DEIS S-8). Again there are no design plans showing these mitigation measures or what the impact will be to the local authorities for the capital investment or additional maintenance costs. In addition, it is anticipated that there will be possible footprint increases to the existing roadway at intersections and possible additional traffic pre-emption signal heads.

2.1.5 Pedestrian and Bicycle Impacts

The DEIS overlooks impacts on bicycle and pedestrian traffic. Many of the railroad crossings are located in heavily populated and densely developed areas that generate a substantial amount of bicycle and pedestrian traffic. The impact to this growing segment of the traveling population has not been addressed. The DEIS does state (section 3.3.1) that “pedestrian at-grade crossings would be upgraded to enhance safety.” The DEIS does not address additional risks to pedestrians crossing the tracks outside of grade crossings as a result of increased freight and new passenger rail traffic traveling at high speeds on two tracks. There are no future projections of greenways stated or statements that discussions have been made to local Transportation/Metropolitan Planning Organizations about their projections for bicycle/pedestrian volumes and about their future plans for greenways.

2.1.6 Emergency Vehicle Mobility

Without the appropriate data, the DEIS does not adequately address the impact on emergency response vehicles. Indian River County has a significant number of hospitals and fire stations that will be impacted by additional railroad crossing blockages. Fire truck and ambulance movements are anticipated to be more inhibited when trains are moving through the grade crossings due to increase rail freight and passenger trains. As stated earlier, the DEIS does state the applicant used an RTC model (see section 4.3.4 on what the software will provide) for projected train movements; however, there is no data given on the projected impacts to at-grade crossings. In addition, there was no indication the local emergency routes were inputted into the RTC model to render a solution on possible delay impacts.

2.2 Noise and Vibration Impacts

The DEIS failed to include an in-depth assessment of the noise and vibration impacts caused by the Proposed Project. High Speed Ground Transportation Noise and Vibration Impact Assessment

(DOT/FRA/ORD-12/15, September, 2012) provides the basic guidance and procedures for the assessment of potential noise and vibration impacts from proposed high-speed ground transportation projects. This manual is intended for projects with train speeds of 90 to 250 mph. The manual is similar to the FTA Transit Noise and Vibration Impact Assessment manual (which is intended for projects with train speeds up to 90 mph). An important characteristic of the noise from high-speed trains that is absent from the DEIS noise analysis is the analysis of the onset rate of the sound signature. Onset rate is the average rate of change of increasing sound pressure level in decibels per second during a single noise event. The rapid approach of a high-speed train is accompanied by a sudden increase in noise for a receiver near the tracks. There is an absence of discussion of onset rate and an apparent reliance on the FTA manual (showing typical A-weighted maximum sound levels) rather than on the more appropriate than FRA manual (showing typical A-weighted levels of high-speed train sources).

The DEIS lacks calculation details and quantitative support for its impact assessment as required by the Federal Railroad Administration manual. In general, the impact assessments are lacking calculation details and quantitative support. The Proposed Project is well beyond the initial planning stages. Therefore, these calculations and support documentation should be required as part of the DEIS analysis.

The DEIS fails to include an evaluation of noise and vibration impacts on subterranean archaeological sites and vertical historical sites along the N-S Corridor. The FRA manual references Section 106 and states with regard to historic and archaeological sites, “Special protection provided by law. Section 4(f) of the DOT Act and Section 106 of the National Historic Preservation Act come into play frequently during the environmental review of transit projects. Section 4(f) protects historic sites and publicly-owned parks, recreation areas and wildlife refuges. Section 106 protects historic and archaeological resources.” The DEIS does not include a complete list of the subterranean archaeological sites and vertical historical sites along the N-S Corridor. Therefore, it does not evaluate the Proposed Project’s noise and vibration impacts on the subterranean archaeological sites and vertical historical sites along the N-S Corridor.

Moreover, AAF made no attempt to collect representative noise data at a representative sampling of intersections along the corridor, as is required by Section 106 of the NHPA.

Specifically, CDM Smith noted the following deficiencies:

1. The DEIS relied on an inaccurate methodology for determining existing noise levels. The FRA manual recommends that noise be considered in terms of divergence, absorption/diffusion and/or shielding at a distance of 50 feet from the source. Existing noise levels at 50 feet were not monitored in the field, but rather estimated based on the FTA Guidance Manual based on population density or proximity to an interstate highway, airport, or an existing rail line. No figures are presented to show the existing ambient noise levels in the Project Study Area derived from these different estimated noise levels. Existing ambient noise levels would be helpful in comparing existing and future build impacts at sensitive land uses and historic properties. Measurements of existing ambient noise levels, especially at sensitive land uses and historic properties, should have been used as the combination of various transportation and urban noise sources can be complex. See Appendix B of the FRA manual which discusses options for determination of existing noise levels ranging from full measurement (more accurate) to tabular lookup (less accurate).
 - a. Outdoor measurements were collected by CDM Smith using a Type 1 SoundPro DL sound level meter in October 2014. The noise meter was placed 5 feet above the ground level. Noise levels

were measured at each location and the equivalent steady-state sound level (L_{eq}) was collected for each site logged in one minute intervals. One minute data log is important to determine any aberrant noise events at each site. Noise levels were measured at six locations within the Project Study Area, as shown in **Table 2-1**. The purpose of the ambient noise level measurement was to quantify the existing acoustic environment and provide a baseline for assessing the impact of future noise levels on the receptors in the vicinity of the proposed action resulting from the Proposed Project. No documentation of field measurements collected by AAF were presented in the DEIS.

Table 2-1 October 2014 Noise Data Collected by CDM Smith

Crossing Location		Measured (various time periods)			Ambient	Train	Train
		Lmax	Leq	Lmin	Leq	Event	Horn
						Leq	Lmax
Sebastian	Roseland Rd	107	79	48	71	88	107
Sebastian	Schumann Dr	104	74	42	64	88	104
Vero Beach	45th St	101	71	47	64	83	101
Vero Beach	23rd St	105	78	52	64	86	105
Vero Beach	4th St	98	76	53	68	86	98
Vero Beach	Highland Dr	106	80	52	67	89	106

- b. People generally perceive a 10 A-weighted decibel (dBA) increase in a noise level as a doubling of loudness. For example, a 70-dBA sound will be perceived by an average person as twice as loud as a 60-dBA sound. People generally cannot detect differences of 1 dBA to 2 dBA. Differences of 3 dBA can be detected by most people with average hearing abilities. A 5-dBA change would likely be perceived by most people under normal listening conditions.
 - c. The DEIS underestimates the noise impacts from the Proposed Project. Table 5.2.2-9 of the DEIS, indicates that the Proposed Project would result in daytime noise levels (L_{eq}) ranging from 62.1 to 63.9 dBA close to at-grade crossings (average 62.5 dBA) and ranging from 61.4 to 63.5 dBA along the mainline tracks. The 2014 ambient noise levels (L_{eq}) collected by CDM Smith in the field ranged from 61 to 71 dBA and 83 to 89 dBA during a train event for the existing condition. These values are higher than the projected background conditions used in the DEIS. The DEIS does not address different noise sources and combining of noise sources such as traffic noise, freight noise, and passenger train noise to calculate the increase in the noise levels from the Proposed Project **which results in underestimation of noise levels from the project.**
 - d. The L_{dn} ranged from 62.2 to 64.1 at-grade crossings and 61.6 to 63.6 along the mainline. The future noise levels listed in Table 5.2.2-10 shows the existing L_{dn} noise levels are 75 dBA with the project noise at 64 dBA in Indian River County. Comparing existing L_{dn} from the existing levels of 62.2 to 64.1 to future levels of 75 dBA, **there is a 10 dBA increase which equates to doubling of loudness.**
2. The DEIS fails to include existing vibration levels in the Project Study Area to compare to future vibration levels. Similarly, generic vibration levels at various distances are only shown for rubber-tired vehicles traveling at 30 miles per hour (mph), light rail traveling at 50 mph, and heavy rail traveling at 50 mph. As suggested by the DEIS, the vibration source in the E-W Corridor is SR 528, where vehicles in the Project Study Area will be traveling at speeds exceeding 30 mph. According to a later reference on page 5-43, freight trains observed for the Amtrak EA had speeds ranging from 30 to 49 mph. No figures

are presented to show the existing vibration levels in the Project Study Area that were used to compare against the future vibration levels.

3. The estimated noise levels for SR528 presented in the DEIS are based on an incorrect classification. The DEIS shows that FRA used FTA noise levels for interstate highways to estimate noise levels near SR 528; however, SR 528 is a state road, not an interstate highway.
4. The DEIS fails to give a detailed explanation of the noise levels associated with both idling locomotives and moving locomotives. The DEIS mentions noise from idling locomotives and moving trains; however, it does not explain what these noise levels are and how the Ldn from moving and idling trains at the VMF were calculated to be 68.8 dBA at 50 feet.
5. The DEIS fails to provide a basis for its declared correction factors for the Proposed Project. On page 5-41, the DEIS states that there is a correction factor for passenger trains of 4 dBA. Moreover, on page 5-50, the DEIS states that there is a correction factor for passenger trains of 10 VdB). These figures, however, are referenced for passenger trains on elevated tracks. No basis is provided for these factors.
6. The DEIS did not adequately account for the noise and vibrations of the construction equipment or the noise and vibrations that occur when you use two pieces of equipment simultaneously. Construction noise is evaluated for the two loudest pieces of equipment. It is not clear whether it was assumed that both pieces of equipment will be operating concurrently. Numerous pieces of equipment operating concurrently may contribute substantially to the overall construction noise, even if the individual equipment may not be as loud as the two selected equipment. The DEIS should have described the other typical construction equipment and the number of various equipment operating simultaneously, and based the analysis on the combined noise from that equipment.
7. The DEIS fails to address the increase in future traffic noise along the Proposed Project corridor. The DEIS references existing noise from SR 528 and other roadways as the dominant existing noise source; however, the increase of traffic along these corridors that will occur by the time the Proposed Project is in full operation (future condition) is not documented. In the DEIS, the total future noise level is calculated by adding the Proposed Project noise level to the existing highway noise level. Therefore, failing to account for the fact that population growth will result in increased traffic noise in the Project Study Area in the horizon year when the Proposed Project is fully operational. Increases in future traffic noise along Project Study Area travel corridors are not addressed in the DEIS. See the FRA manual, Chapter 3, Noise Impact Criteria, which discusses relationship of project noise impacts to ambient noise levels (the higher the ambient noise level, the lower the noise level increase before onset of impact). The document also does not discuss the freight and passenger rail growth and long term impacts.
8. The DEIS fails to analyze the increase in freight traffic in the alternatives analysis. The DEIS analyzes the increase in freight operation for the No-Action Alternative only. The change in freight operation should have been addressed for the Project Alternatives, as required by NEPA for an EIS.
9. The DEIS failed to discuss the quantitative effects of speed and type of locomotive on the noise and vibration levels. The DEIS indicates that noise and vibration levels were calculated for different train speeds. The document should have discussed the effect of the referenced speed and type of locomotive (i.e., freight vs. high speed passenger train) on noise and vibration levels, such as

calculating high speed train onset rate, or startle effect (see p. 2-6 of the FRA Manual) and aerodynamic noise (see p. 2-11 of the FRA Manual).

10. The DEIS did not properly analyze the noise and vibration impacts to land uses, historical structures or archeological resources that are within 600 feet of the Proposed Project's Rail Corridor. Page 4-37 of the DEIS specifically states that the Project Study Area for vibration extends approximately 600 feet from the rail corridor; however, on page 4-122, the DEIS deviates from the 600 feet boundary and presented a vibration analysis for archaeological resources that was limited to the footprint of subsurface activities within the existing approximately 100-foot wide FECR ROW for the N-S Corridor.
11. The DEIS fails to disclose the total number of land uses that are sensitive to noise or vibration (a.k.a. sensitive receptors) currently being affected by existing noise levels. In Section 5.2.2.2, numbers of impacted sensitive receptors are presented for various project components. AAF should discuss the total number of sensitive receptors and ones that may already be impacted without the Proposed Project in the Affected Environment section (refer to pages 5-5 through 5-8 of the FRA Manual).
12. The DEIS fails to adequately describe the noise and vibration mitigation. Section 7.2.4 indicates that AAF will implement mitigation measures as part of the project design; however, it is unclear what that mitigation would be, or what its effectiveness would be in addressing significant impacts.
13. The DEIS fails to include a documented mitigation analysis. Moderate and Severe impacts are identified in the DEIS, however, mitigation analysis is not documented. Noise barrier analysis or horn noise assessment using the FTA and FRA noise assessment manuals is not included in the DEIS. The FRA manual for high-speed rail projects is designed to complement the FTA manual. The High-Speed Ground Transportation Noise Spreadsheet Model has been developed in conjunction with the FRA manual for calculating noise from high-speed rail projects.

2.3 Air Impacts

The DEIS did not use the correct methodology to analyze the increase in vehicular emissions caused by the Proposed Project. The Methodology section on page 5-34 of the DEIS states that for vehicular emissions modeling, "all vehicles were assumed to be gasoline burning vehicles." The assumption is not used by the Federal Highway Administration (FHWA) and is not a U.S. EPA-recommended methodology for NEPA analyses [U.S. EPA, "Policy Guidance on the Use of MOVES2014 for State Implementation Plan Development, Transportation Conformity, and Other Purposes" (EPA-420-B-14-008, July 2014)]. The DEIS should analyze the vehicular emissions using the latest version of the U.S. EPA's Motor Vehicle Emissions Simulator (MOVES), MOVES2014 [Note that the older version, MOVES2010, is also acceptable. (79 FR 60343)]. The FRA should have obtained MOVES2014 input files from the Florida Department of Environmental Protection or FDOT for Florida vehicle fleet distributions, by geographic area, and run these to obtain accurate, up-to-date, and defensible emissions inventories for a representative mix of vehicle types and ages.

The DEIS fails to examine the negative localized impacts of air emission rates due to the Proposed Project. Tables 5.2-1 and 5.2-2 show the overall regional net benefit in annual mass air emissions due to the induced modal switch from passenger cars to train use. The text suggests that this benefit is not uniformly distributed across the state. The Miami to West Palm section of the project will receive most of the benefit, because that is where train stations are available to travelers; however, it is likely that Indian River County will suffer detriment because the Proposed Project will INCREASE annual mass air emission rates in its area.

This is because Indian River County will have no train stations to remove on-road vehicle trips, but will have increased emissions from passenger trains, induced additional freight trains, and greater idling at at-grade crossings. The Proposed Project's air emissions impacts specific to Indian River County should be modeled and disclosed. The public should have complete information about impacts the Proposed Project will cause in some portions of the state so that other portions of the state can receive benefits.

The DEIS fails to address the Proposed Project impacts to the localized air quality. Potentially significant localized impacts would be expected to be associated with maintenance yards, terminals, and park-to-ride lots. The Proposed Project plans to have third-rail siding at three locations in Indian River County. If the purpose of the third track siding is to hold idling freight trains while the high-speed passenger trains passes, the DEIS should include modeling for these emissions, especially diesel particulate matter emissions. The DEIS should also address potential effects to sensitive receptors nearest these locations.

The intersection carbon monoxide analysis has been generalized from the 2012 Phase 1 studies. An up-to-date analysis with the latest traffic and emissions data is recommended to determine if a microscale dispersion models should be run for carbon monoxide concentrations at the worst-case at-grade crossing in Indian River County (FHWA Technical Advisory T 6640.8A). An analysis for the new one-hour nitrogen dioxide National Ambient Air Quality Standard (NAAQS) should be included. Although quantitative modeling is not required by FHWA Technical Advisory T 6640.8A, this new stringent NAAQS is a possible issue at congested intersections.

Section 5.2.1.4 Construction-Period Impacts evaluation lacks the detail required for an adequate DEIS. Among other things, the analysis should include a discussion of the length of the construction period along each segment, identification of areas where contaminated soils would be disturbed (and specific mitigation measures), identification of construction staging areas and their activities, description of and commitment to specific dust control measures, and an evaluation of exposure to diesel particulate matter emissions from construction equipment (FHWA Technical Advisory T 6640.8A).

Regarding DEIS Section 7.2.3 – Mitigation Measures, Air Quality, the discussion of mitigation for fugitive dust control is generic, and there is no mention of mitigation for diesel particulate matter emissions. Mitigation discussion is required under 40 CFR 1502.16(h). The section should identify the Best Management Practices that would be employed at staging areas and at construction sites. CDM Smith recommends also that AAF commit to use of construction equipment meeting U.S. EPA Tier 4 emissions standards, or to retrofitting equipment not meeting these standards with diesel particulate matter filters.

2.4 Coastal Zone Management

The DEIS speaks to the applicable coastal zone management statutes (Table 5.2.5-1) and concludes that the Proposed Project is consistent, but there is very little back-up for this conclusion. Additionally, Table 5.2.5-1 omits applicable, enforceable policies 553 (Building and Construction Standards) and 597 (Aquaculture). As in the rest of the DEIS, the assumption is made that all work will occur within the existing FECR corridor, which does not take into account intersection improvements, staging, noise barriers, stormwater management, etc.

The following excerpts from Table 5.2.5-1 are examples of unsupported statements:

1. "Chapter 163, Part II *Growth Policy; County and Municipal Planning; Land Development Regulation*: The Proposed Project would be consistent with local, regional, and state comprehensive plans.

Consistency with these plans has been included in the purpose and need criteria matrix used to develop the Action Alternatives.”

Comment: The DEIS fails to adequately address the Proposed Project’s consistency with Indian River County’s local Coastal Zone Element Plan. Under the Florida Coastal Management Program Guide, Chapter 163, Part II, Florida Statutes is an enforceable policy incorporated in the federally-approved FCMP. Chapter 163.3194 provides the legal status of comprehensive plans that have been adopted in conformity with the Coastal Zone Management Act. Therefore, Proposed Project must be consistent with the Indian River County 2030 Comprehensive Plan. There is no information provided in the DEIS specifying how the Proposed Project is consistent with this Comprehensive Plan. Also, the only planning consistency criterion used in the alternatives screening is “Consistency with plans of transportation agencies and landowners.” There is no reference to consistency with local plans in the discussion of purpose and need or alternatives.

2. “Chapter 252 *Emergency Management*: The Proposed Project would include the development of a passenger rail system within an existing rail corridor and along an existing highway ROW. The E-W Corridor would be located outside of the defined storm surge zones and hurricane evacuation areas for Brevard and Orange counties. Within the N-S Corridor the rail line would be located within Florida Division of Emergency Management-defined storm surge zones; however the development would occur entirely within the FECR Corridor and would be consistent with the existing transportation uses. While the proposed rail system would encourage regional connection as well as growth in the vicinity of the supporting stations, growth would be focused in previously developed areas and would be consistent with existing commercial and industrial land uses. Consequently, the Proposed Project would not affect the state’s vulnerability to natural disasters and would not affect emergency response and evacuation procedures. Further the Proposed Project would be consistent with the emergency preparedness policies within the East Central Florida and Treasure Coast SRPPs.”

Comment: The DEIS does not present any information regarding how the Proposed Project will affect emergency response and evacuation procedures. Under the Florida Coastal Management Program Guide, Chapter 252, Florida Statutes is an enforceable policy incorporated in the federally-approved FCMP. The statement that the Proposed Project would encourage growth contradicts other statements throughout the DEIS that the Proposed Project will not result in induced growth/development. Furthermore, the conclusion that because growth would occur in developed areas, vulnerability to natural disasters would not be affected is not true. Increased development, even in developed areas, can certainly affect emergency response and evacuation procedures by increasing response times and making evacuation more difficult.

3. “Chapter 259 *Land Acquisition for Conservation or Recreation*: The Proposed Project would likely result in beneficial impacts; compensatory mitigation would be required including the potential acquisition of environmentally endangered lands. Impacts to delineated wetlands would require mitigation as required by Section 404 Individual Permits. Consequently, while the implementation of the Proposed Project would remove wetlands from the N-S and E-W Corridors, compensatory mitigation would include the potential acquisition of environmentally sensitive habitat types.”

Comment: The DEIS does not acknowledge the potential negative impacts to Indian River County that could result from mitigation activities and loss of environmentally sensitive lands. There is no

explanation of what compensatory mitigation and/or acquisition of environmentally sensitive habitat types is envisioned elsewhere in the DEIS (should be included under “Mitigation Measures and Project Commitments” in Section 7). Furthermore, it’s not accurate to say that the Proposed Project would result in beneficial impacts. The Proposed Project would result in negative impacts, thereby requiring mitigation.

4. “Chapter 288 Commercial Development and Capital Improvements: The Proposed Project would have an indirect beneficial effect on future business opportunities and would likely promote tourism in the region.”

Comment: Again, this statement in the DEIS contradicts other statements in the DEIS that there will be no induced growth/development.

5. In addition to the unsupported statements, the DEIS states that the Clearinghouse determined that a positive consistency determination from a “similar project” would be valid for the Proposed Project (see below from Section 5.2.5):

“As stated in the 2013 FONSI for the WPB-M Corridor, the Florida State Clearinghouse has reviewed the South Florida East Coast Corridor Transit Analysis, a similar project to the Phase I to the WPB M Corridor described in the 2012 EA. The South Florida project was determined to be consistent with the FCMP, and the State Clearinghouse determined that this consistency determination would be valid for the AAF project because the AAF Project Study Area is fully encompassed within the South Florida East Coast Corridor Transit Analysis area which was found to be consistent in 2006 and there have been no relevant changes in the CZMA or FCMP criteria that would affect that determination.”

Comment: The Florida State Clearinghouse made a consistency determination without input from all of the Florida Coastal Management Plan agencies. In Florida, under Section 380.23, Florida Statutes, a project can only be found consistent if all commenting agencies (under the FCMP agency umbrella) with relevant statutory responsibilities concur. In this case, the FCMP agencies were not given an opportunity to comment on the project by the Florida State Clearinghouse. Rather the Florida State Clearinghouse made the determination without agency input. Per the Florida State Clearinghouse manual (<http://www.dep.state.fl.us/secretary/oip/manual/manual.htm>), the Clearinghouse sends the document or application to OIP for coordination of DEP review. The appropriate DEP division or district contacts distribute the project to appropriate division bureaus and satellite offices. Based on the information provided in the DEIS, this process was never conducted. Additionally, the South Florida East Coast Corridor Transit Analysis is cited as similar to Phase I, so the consistency determination for this project would not be valid for Phase II of AAF.

2.5 Environmental Justice (EJ)

The DEIS overlooks the negative impacts to minority and low income communities in those areas of the Proposed Project that do not have proposed stops. The EJ analysis indicates, under Indirect and Secondary Impacts, that the Proposed Project would have a beneficial effect on minority and low income populations in Orlando, West Palm Beach, Fort Lauderdale and Miami by providing an alternative transportation option that would improve access and mobility between Orlando, West Palm Beach, Fort Lauderdale and Miami. There however is no discussion of what type of beneficial effect the Proposed Project would have upon other EJ populations along the rail line. This is also connected to early comments received on the Proposed

Project concerning areas without a station that would be adversely affected, but would not receive any economic or social benefits.

Additionally, AAF failed to conduct significant public outreach to affected minority communities located along the FECR corridor. AAF received a comment during early scoping for the Proposed Project to include significant public outreach to minority communities that are located along the FECR Corridor; however, there is no discussion within the DEIS of such an outreach occurring within Indian River County. Indian River County has confirmed with Freddie L. Woolfork, an Executive Board Member of the Gifford Progressive Community League, that AAF held a meeting at the Gifford Youth Activity Center for local citizens. The required meeting, however, was described as a “generic, shortened version of a previous (non-Gifford-specific) public meeting.” There was no specific information pertaining to the impacts the Proposed Project would have on the Gifford community. In fact, Mr. Woolfork described the meeting with AAF as “more of a discussion to let [the Gifford Community] know that there would be a new passenger project in Florida and that there would be 32 round trips per day going through Indian River County at 120 MPH and that it is a great economic benefit to all of Florida...” It is therefore obvious that AAF held a meeting in the Gifford Community to satisfy a NEPA requirement without any intention of taking into consideration the comments, concerns and issues brought forth by those local residents.

2.6 Natural Resources Impacts

CDM Smith notes the following comments/concerns with regards to natural resources impacts:

2.6.1 General Comment

The DEIS does not fully address the environmental impacts to the natural resources located within Indian River County. For example, Sections 7.2.6 and 7.2.10 state that the relative mitigation activities will be identified in the various permit requirements (once issued), rather than identifying the impacts and stating what the mitigation activities will entail. NEPA requires that the environmental impacts be addressed in the DEIS, and not deferred to the permitting process. Moreover, on pages 4-54 and 7-8, the DEIS states that the USACE permitting process will rely on the DEIS as the required NEPA document to complete the Section 404(b) (1) analysis. It is therefore necessary that the issues be sufficiently addressed within DEIS document. Thus the analysis of the impacts is inadequate.

2.6.2 Water Resources

The following are examples from the DEIS demonstrating the lack of sufficient information necessary to adequately address impacts to water resources:

- Section 5 of the DEIS says stormwater Best Management Practices will be installed but gives no specifics on what type of Best Management Practices they intend to use or the location.
- Page 3-35 of the DEIS states that the Proposed Project will include installing a third rail at various locations (3 within Indian River County). On page 5-79 of the DEIS, it states “The Project would include improvements to the existing mainline and reconstruction of the second tracks on the existing track beds. Constructing the Project in the N-S Corridor would not create new impervious surface.”
- The DEIS does not take into account that there will be new impervious surface due to road construction outside the existing corridor. For example, The DEIS fails to address the

environmental impacts of the new impervious surfaces that AAF is required to install outside the existing corridor to qualify as a sealed corridor. On page 5-79, the DEIS states that constructing the Proposed Project in the N-S corridor will not create new impervious surfaces. This statement is contradicted in several areas throughout the DEIS. Page 3-33 of the DEIS states that the existing railroad system was built and is maintained to FRA Class IV track standards. On page 3-36, the DEIS states that the Proposed Project intends to operate at a speed of up to 110 miles per hour. According to the Railroad-Highway Grade Crossing Handbook –Revised Second Edition (2007), would require track improvements to achieve Class VI standards. Specifically, Class VI tracks (high speed rail) requires a sealed corridor, which includes the installation of a 100 foot median on each side of the road crossing (where feasible; 4-quadrant gates can be used as an alternative if crossing geometry does not support the installation of the median)(see Section 3 of the above-referenced handbook). These necessary improvements will cause new impervious surfaces that fall outside of the FECR ROW. The DEIS should address the additional impacts from these impervious surfaces.

2.6.3 Construction

The DEIS does not address staging or equipment laydown locations or temporary/permanent impacts on the natural environment. Under NEPA, the DEIS is required to address both construction and post-construction impacts of the proposed action. See Federal Register (volume 64, No. 101 dated May 26, 1999). This has not been done.

2.6.4 Mitigation

The DEIS fails to identify specific mitigation measures for the adverse effects the Proposed Project will cause on the natural environment. For example, page 7-10 of the DEIS states: “AAF will obtain an appropriate Section 404 permit from USACE prior to construction, and implement mitigation as required by the wetland permit conditions.” NEPA requires that the specific impact be identified and corresponding planned mitigation presented.

The DEIS appears to claim the benefits of mitigation in several instances, without specifically describing the mitigation activity. Under NEPA, the impacts must be analyzed first before mitigation can be considered. According to Table 5.2.5-1 regarding land acquisition for conservation and recreation: “The Project would likely result in beneficial impacts; compensatory mitigation would be required including the potential acquisition of environmentally endangered lands. Impacts to delineated wetlands would require mitigation as required by Section 404 Individual Permits. Consequently, while the implementation of the Project would remove wetlands from the N-S and E-W Corridors, compensatory mitigation would include the potential acquisition of environmentally sensitive habitat types.” There is no explanation of what compensatory mitigation and/or acquisition of environmentally sensitive habitat types would be required in the DEIS. Furthermore, it’s not accurate to say that the Proposed Project would result in beneficial impacts. The Proposed Project would result in negative impacts, thereby requiring mitigation. That mitigation should have been addressed and described in detail in the DEIS.

2.7 Wetland Impacts

The wetlands discussion in Sections 4 and 5 of the DEIS is inadequate. No figures showing wetland locations relative to the Proposed Project area appear in the DEIS text or appendices. The DEIS does, however, include approximate acreages for impacts. IRFWCD staff has indicated that they do not believe

that inclusion of the banks of the North, Main or South Relief canals as wetlands is appropriate. Background information is required to confirm the accuracy of these estimates.

The following are specific examples from Sections 4 and 5 of the DEIS deficiencies:

1. There is a statement in Section 4.3 that “Wetlands were identified and characterized for areas in which the Project would require ground disturbing activities.” Those areas should be specifically identified and include all planned activities (roads, utilities, noise barriers and other mitigation, etc.) as well as staging and equipment laydown locations.
2. Section 4 states that field delineations were conducted for the FECR corridor, but there are no figures showing wetland boundaries for that corridor. The text references the land use figures in Appendix 4.1.1-A, which do not show wetlands. The only wetlands figures in the appendices are for the E-W corridor.
3. USACE jurisdictional determination should be included in the DEIS/EIS.

2.8 Threatened and Endangered Species Impacts

The limited geographic scope of the DEIS prevents CDM Smith from fully analyzing the impact of the Proposed Project on threatened and endangered species. As is noted consistently throughout CDM Smith’s review of the DEIS, impacts to threatened and endangered species are addressed only within the railroad ROW. The USACE, U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) determinations that the Proposed Project will have no adverse effect on threatened and endangered species are based on the assumption that all work will occur within the existing ROW (reference Sep. 18, 2013 letter from USACE to the National Oceanic and Atmospheric Administration; September 24, 2013 letter from USACE to USFWS; Oct. 28 letter from NMFS to USACE; AMEC notes from Sep. 6, 2013 meeting with USFWS, USACE and NMFS). The determination needs to take into account any activity outside the ROW. AAF needs to present information about these activities to the agencies and include their feedback in the DEIS.

Section 3

Section 4(f) Evaluation and Cultural Resources

As properly stated in Section 6 of the DEIS, Section 4(f) of the U.S. Department of Transportation (DOT) Act of 1966 requires DOT agencies to avoid using certain public resources when undertaking transportation projects, unless there is no prudent alternative and all necessary action is taken to minimize harm. Section 4(f) resources include publicly owned parks, recreation areas, wildlife and/or waterfowl refuges and historical properties of National, State or local significance.

The DEIS includes Section 4(f) comments in both Section 5 and Section 6; however, there are inconsistencies between the two sections. For example, Section 5 does not include historical properties (it should), while Section 6 does. Section 6 refers only to the St. Sebastian River Bridge within Indian River County.

3.1 Cultural Resources

Upon review of the Cultural Resources section of the DEIS it appears that the Section 106 process implemented can best be characterized as minimalistic. FRA's decision that "...consultation with local entities was not required for Phase II," is perplexing due to the overall size and nature of the Proposed Project which can affect such a vast array of resources (DEIS 4-124).

In the NHS Section 106 minutes contained in the appendix of the DEIS, it is clear that the SHPO advised AAF to use the 106 process; however, SHPO also determined that AAF did not need to fully engage local governments/groups/individuals as Section 106 Consulting Parties to fulfill the NEPA public input requirements of the National Historic Preservation Act (NHPA). This is simply not appropriate. CDM Smith feels strongly that this approach does not properly allow the local communities an opportunity to voice their concerns in a forum that is adequate to the important resources within the Project Study Area.

The DEIS in regards to the identification, evaluation and effect determinations of historic properties is again minimal in its content with notable absences of known National Register listed and determined eligible resources. Several known archaeological sites that fall within the Proposed Project APE appear to not have been surveyed and evaluated for National Register eligibility and effects. At the very least they are not properly addressed. In addition, it is not clear if an adequate archaeological survey was conducted for portions of the Proposed Project APE. No subsurface testing was done in the N-S FECR Corridor per a letter dated Oct 31, 2013.

According to the DEIS, the FECR, a National Register Historic District, falls within the Proposed Project APE and has contributing resources adversely affected (St. Sebastian Bridge), yet the DEIS states that this same district has a no adverse effect determination as a result of the Proposed Project. If a district loses a contributing resource, then the district itself experiences an adverse effect. It is also apparent that not all known historic resources were identified and evaluated within the Proposed Project APE as several National Register Historic Districts are absent from the discussion within the DEIS.

The DEIS either completely omitted or inadequately addressed numerous historical and archeological sites in Indian River County. These sites, including with an archaeological site *in or immediately adjacent* to the south side of the St. Sebastian Bridge, were not acknowledged or discussed in the DEIS. Other historical properties include individual National Register buildings along Old Dixie Highway and a House Museum and Farmstead, which are part of a 100-acre conservation preserve. This unique property is also listed on the National Register and was not acknowledged or discussed either under cultural resources as part of the Section 4 (f) Table.

Two other areas of concern relating to cultural resources are:

1. The DEIS does not indicate that vibration studies were conducted in relation to historic structures and archaeological sites.
2. The DEIS does not examine the construction impacts in relation to historic or archaeological resources (overall construction activities and staging areas are not addressed).

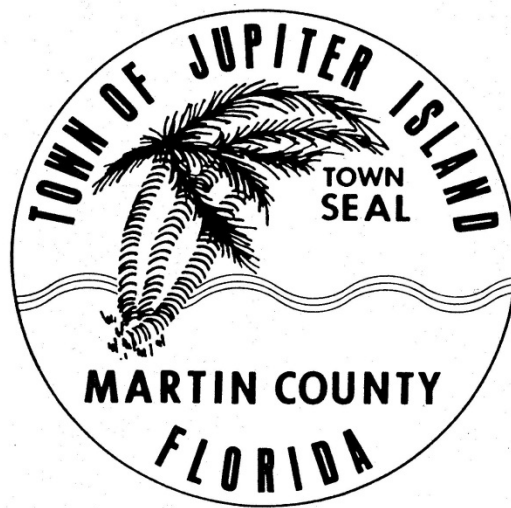
While the development of the Proposed Project's APE and methodology appear to have been developed with the input of SHPO, the DEIS's lack of information, and omission of important resources that clearly fall within the Proposed Project's APE are very concerning and raise the question whether the methodology was properly executed. Couple this with the substitutive process used that minimally consulted with local entities results in a DEIS that is lacking in these critical areas.

CDM Smith has worked closely with the Indian River County Historian and other local resources to identify a substantial number of properties missing from the DEIS that appear on either the State of Florida's Master Site File system or in the National Register of Historic Places. As stated above, Section 4(f) requires that consideration be given to "historic properties of National, State or local significance." Aside from those properties listed on the NRHP, there are a significant number of properties alongside the corridor that are of local significance and importance.

CDM Smith believes that the Cultural Resources evaluation included in the DEIS is incomplete and recommends that a supplemental DEIS be required prior to issuance of a Record of Decision by the FRA.

**Town of Jupiter Island, Florida
Comments on the Federal Railroad Administration's
Draft Environmental Impact Statement and Section 4(f) Evaluation
for the All Aboard Florida Intercity Passenger Rail Project**

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I. INTRODUCTION

The Town of Jupiter Island, Florida welcomes this opportunity to submit comments to the Federal Railroad Administration (“FRA” or “the Agency”) concerning the FRA’s September 2014 draft environmental impact statement (“DEIS”) for the proposed All Aboard Florida (“AAF”) Orlando to Miami Intercity Passenger Rail Project (“the Project”). The Town of Jupiter Island is situated on a barrier island on the south end of Martin County, Florida, near the proposed project and is home to a low-density residential community that seeks to preserve natural resources to the maximum extent possible.

The ill-conceived Project threatens unacceptable adverse impacts on the safety and welfare of the communities, families and businesses of coastal Florida. Notably, the Project will create new and totally unacceptable safety risks. The Project will run high-speed passenger trains through densely populated coastal communities, and in the same right-of-way there will be a sharp increase in the number of freight trains carrying toxic materials. It will profoundly disrupt the region’s recreational and commercial boating activities in navigable waterways. Yet those two topics receive totally inadequate analysis or candor in the DEIS. The DEIS fails to adequately compare the Project with reasonable alternatives – alternatives that do not create such hazardous safety, environmental, and economic impacts.

As discussed at length below, the DEIS does not satisfy the FRA’s obligations under the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. § 4332 *et seq.*, its implementing regulations or applicable Council on Environmental Quality (“CEQ”) guidance materials. At a bare minimum, the FRA must do significantly more work to evaluate the potential impacts of the project – direct, indirect and cumulative – and to evaluate appropriate mitigation measures for those impacts.

A. THE FRA SHOULD PREPARE A SUPPLEMENTAL DEIS

NEPA serves two purposes: (1) ensuring that federal agencies carefully consider information about significant environmental impacts; and (2) guaranteeing that relevant information is made available to the public. *See, e.g., Northern Plains Resource Council, Inc. v. Surface Transportation Board*, 668 F.3d 1067, 1072 (9th Cir. 2012). The existing DEIS for the Project fails to fulfil either purpose. More specifically, the DEIS is defective for at least five reasons:

1. *Inaccurate and Inadequate analysis of navigation impacts.* The DEIS glosses over and does not contain any of the significant and material detrimental impacts the Project will have on marine navigation. As this set of comments demonstrates, the DEIS fails to engage in a meaningful discussion of potential navigation-related mitigation measures. Most notably, the DEIS fails to recognize the significant navigation-related problems caused by the Project utilizing the existing St. Lucie River, Loxahatchee, and New River bridges, and fails to engage with the manner in which those existing problems will be worsened by the Project. These issues are discussed at length in Section [III.A] below and include the observations of Mr. Dana A. Goward, a retired Senior Executive Service

official and retired Captain in the U.S. Coast Guard who was previously responsible for the permitting and regulation of more than 18,000 bridges.

2. *Inadequate analysis of climate-related risks.* The DEIS recognizes that changing climate conditions pose a threat to the Project's rail corridor and bridges but contains no discussion of (a) how that threat affects the economic assumptions underlying the Project; (b) how that threat affects the FRA's analysis of the Project's safety impacts; and (c) climate resiliency measures that should be implemented as part of the Project (should it go forward). The DEIS fails to adequately evaluate the alternative inland route that is not as susceptible to the effects of rising sea level and storm surges as the coastal floodplain chosen for the Project.

3. *Missing information about the Project.* The DEIS environmental analysis is premised entirely on claims of how many people will ride the train and corresponding claims of environmental benefit related to reductions in automobile trips. However, neither the agency nor AAF has made available any version of the corollary cost and business model assumptions that underlie the FRA's assertion that the Project is commercially viable and, therefore, preferable to the various alternatives discussed (and dismissed) in the DEIS. As such, the DEIS provides no assurance that the FRA has examined those assumptions and deprives the public of the opportunity to assess the commercial viability of the Project. AAF clearly has a range of potential ticket prices – it privately distributed this information to prospective bond holders – but its website and the DEIS fail to disclose any ticket price information to the public. Without seeing information on ticket prices, the public cannot meaningfully compare the Project to alternative forms of transportation. Thus, the DEIS's assumption that a significant portion of the public will choose the Project over driving automobiles is arbitrary. The Agency should issue a supplemental DEIS that provides a range of ticket prices and rigorously explores whether those prices are high enough for AAF to pay back its investors and low enough to attract enough riders to justify the Project's claimed environmental benefits.

4. *Inadequate analysis of safety impacts.* The Project will more than triple the number of trains (and dramatically increase the speed of those trains) passing through nearly 350 at-grade road crossings traversed by tens-of-thousands of cars and numerous pedestrians each day, along a rail corridor where trespassing, in the words of one FRA engineer, is “epidemic” and which faces increasing risk of damage from rising sea levels and changing climate conditions. Yet all the DEIS says about the safety risks posed by the Project is that “opportunities for conflict” between trains and people or vehicles “may” increase and that vague, unspecified “improvements” “would minimize potential conflicts and their consequences.” DEIS at S-17; *see also* DEIS at 5-133 to 5-137 (discussing public safety). Such an utterly conclusory analysis in no way satisfies the FRA's obligation to assess the public safety impacts of the Project or to discuss mitigation of those impacts. Instead, the FRA must prepare a supplemental DEIS that contains reasonable

projections of the nature, extent, and frequency of safety problems that may occur as a result of the Project, along with a meaningful discussion of mitigation measures for those problems. The DEIS also ignores memos prepared by the FRA's own staff earlier than the DEIS that directly address these issues.

5. *No meaningful alternatives analysis.* The DEIS's overly narrow purpose of the Project – its claimed commercial viability for AAF – resulted in a premature dismissal of reasonable alternatives. “The heart of the environmental impact statement” rests in the alternatives analysis. 40 C.F.R. 1502.14. An EIS is supposed to “[d]evote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their *comparative* merits.” 1502.14(b) (emphasis added). The alternative routes, specifically the inland CSX route, do not pose the same hazardous risks to maritime navigation, safety, and the environment. But as discussed throughout these comments, the DEIS does not provide sufficient information on these critical issues and does not engage in a meaningful analysis of the alternatives to the Project.

To fulfil its NEPA obligations, the FRA should prepare a supplemental DEIS that addresses all of the issues outlined above and discussed in greater detail in the body of these comments. Equally important, the FRA should use the supplemental DEIS to develop a more comprehensive set of mitigation measures for the Project's impacts and should propose a mitigation monitoring plan. It is not enough for the FRA to say (for example) that safety “recommendations” will be made at some unspecified time in the future, as the Agency does on page 5-134 of the DEIS. Instead, the FRA should put forth a document for public comment that both predicts what might happen as a result of the Project and identifies specific, realistic measures that can be taken to mitigate those impacts. That is what NEPA requires.

B. SUBSTANTIAL MITIGATION EFFORTS SHOULD BE IMPLEMENTED IF THE PROJECT GOES FORWARD

In the event the FRA decides to publish a final environmental impact statement for the Project without first publishing a supplemental DEIS – which it should not do – the FRA must, at a minimum, ensure that the final EIS contains a comprehensive list of appropriate mitigation measures, along with a plan for monitoring the implementation of those measures. Among the many mitigation measures the Agency needs to consider are the following:

- Replacement of the St. Lucie, Loxahatchee and New River bridges with higher, more modern, safer bridges that do not adversely impact navigation as the current bridges do, and do not create adverse noise, vibration or visual impacts on the surrounding communities.
- Implementation of a full suite of rail-related safety measures including, but not limited to, the creation of a sealed corridor at all at-grade crossings and the installation of pedestrian gates at those locations where sidewalks are present on either side of the rail line.

C. THE AGENCY MUST ALSO CONSIDER MANY OTHER ISSUES

The Town of Jupiter Island has focused its comments on the areas where it can provide special insights based on the direct adverse impacts that the Project will have on its members. But the Project raises many other concerns that the Agency must also consider and address. In particular, the Town of Jupiter Island adopts, and incorporates by reference, the well-considered comments submitted by the Board of County Commissioners of Indian River County, Florida (the “Indian River County Comments”) and those submitted by Martin County, Florida (the “Martin County Comments”). The Town of Jupiter Island also urges the Agency to carefully review all of the comments submitted as part of the public comment process, as public transparency about the Project is one of the Town of Jupiter Island’s primary concerns and should also be a priority for the FRA.

II. BACKGROUND

Protecting the safety, welfare and way of life for the families, businesses and retirees who live in and around our communities is our goal. We also care about transparency and are seeking open and honest discussions on the costs, benefits and risks of rail expansion in Florida.

We are opposed to the combined proposed passenger and freight rail expansion because we believe, based on facts and a commonsense understanding of the reality of life with trains – and waterways, causeways, drawbridges and other infrastructures that define day-to-day life in South Florida – that rail expansion in the corridor chosen by AAF will have a significant and negative impact on our communities. When we refer to “our communities” we mean that expansively, as more than 10 million people live in and around the areas that will be affected by the proposed rail expansion.

A. TOWN OF JUPITER ISLAND, FLORIDA

Incorporated in 1953, the Town of Jupiter Island is situated on a barrier island on the south end of Martin County, Florida. The Town consists of approximately 1,643 acres of land bound on the east by nine miles of ocean frontage and on the west by the Intracoastal Waterway. The Town’s permanent population is 820 and its seasonal population is approximately 2,000.

The climate and environmental resources of Jupiter Island have contributed to the development of a low-density residential community that seeks to preserve natural resources to the maximum extent possible. The primary land uses in the Town are single-family residential development and conservation/preservation. The few commercial land uses within the Town exist primarily to serve residents. The remaining vacant land is designated for single-family residential, recreational and conservation uses.

Preservation is very important to the Town of Jupiter Island. In 1968, a portion of land at the southern end of the Island was given to The Nature Conservancy as a wildlife preserve. In 1976, 500 acres of land at the north end of the Island was given to the U.S. Department of the Interior as a preserve.

The Town of Jupiter Island is opposed to the AAF proposal and related increase in freight rail because it believes the proposals will have a significant, negative impact on its community and the surrounding Treasure Coast communities, for a myriad of reasons related to public safety, noise, quality of life, maritime navigation and climate-related vulnerabilities.

B. AAF AND THE PROJECT

All Aboard Florida – Operations LLC is a subsidiary of New York hedge fund Fortress Investment Group. Although AAF is seeking at least \$1.6 billion in financial support from the FRA’s Railroad Rehabilitation and Improvement Financing (“RRIF”) program, it has also indicated that intends to fund the Project through \$1.75 billion in Private Activity Bonds (“PABs”). AAF released a preliminary bond offering memorandum to potential *investors* in June 2014 but has failed to disclose any economic information that would be useful to potential *riders*.¹

The DEIS indicates that AAF has articulated two purposes for the Project. The first is “to provide reliable and convenient intercity passenger rail transportation between Orlando and Miami, Florida . . . by maximizing the use of existing transportation corridors.” DEIS at S-5. AAF claims that “[t]his transportation service would offer a safe and efficient alternative to automobile travel on congested highway corridors, add transportation capacity within those corridors (particularly Interstate 95 [I-95]) and encourage connectivity with other modes of transportation such as light rail, commuter rail and air transportation.” *Id.* The second purpose of the Project is to “provide intercity passenger rail service that addresses South Florida’s current and future needs to enhance the transportation system by providing a transportation alternative for Floridians and tourists” *Id.*

More importantly, the DEIS indicates that AAF’s primary “objective” “is to provide an intercity rail service that is sustainable as a private commercial enterprise.” *Id.* (emphasis added). That “objective” has two components: (1) providing “a reliable and efficient intercity rail service between Orlando and Miami with an approximate 3-hour trip time,” and (2) providing intercity rail service that is “sustainable as a private commercial enterprise,” with “sustainable” meaning that it “can attract sufficient riders to meet revenue projections and operate at an acceptable profit level.” *Id.*

As discussed more fully in Section III below (“The DEIS Does Not Satisfy NEPA”), the DEIS fails to carefully examine whether the Project can in fact meet either of AAF’s objectives and often reads as if AAF’s convenience, building schedule and profit potential are more important than any other pertinent considerations, such as safety and navigation of the waterways.

¹ AAF has sued various state agencies and a Florida citizen to prevent the public disclosure of its ridership study and ticket price information. See Arnie Rosenberg, *All Aboard Florida files suit to block agencies from releasing 'sensitive' documents*, **TCPalm** (Jun. 16, 2014), <http://www.tcpalm.com/franchise/shaping-our-future/our-roads/all-aboard-florida-files-suit-blocking-agencies>. This information is critical for the public to evaluate the Project. Because of AAF’s lawsuit this information is not included in these comments, but we firmly believe that the Agency should make it part of the record for the public to view.

C. THE FRA'S OBLIGATIONS UNDER NEPA

NEPA and its implementing regulations require federal agencies to take a “hard look” at the direct, indirect and cumulative impacts of those federal actions that have a significant impact on the human environment. *See* 40 C.F.R. §§ 1508.7, 1508.8 & 1508.25(c); *N. Plains Res. Council, Inc. v. Surface Transp. Bd.*, 668 F.3d 1067, 1075 (9th Cir. 2012). A “hard look” means, among other things, that the agency must discuss adverse impacts without improperly minimizing them. *See Native Village of Point Hope v. Jewell*, 740 F.3d 489, 494 (9th Cir. 2014). In addition, while agencies need not “foresee the unforeseeable,” they are required to engage in “reasonable forecasting and speculation.” *Delaware Riverkeeper Network et al. v. FERC*, 753 F.3d 1304, 1310 (D.C. Cir. 2014) (citations omitted). Agencies must also “either obtain information that is ‘essential to a reasoned choice among alternatives’ or explain why that information is too costly or difficult to obtain.” *Native Village*, 740 F.3d at 493 (quoting 40 C.F.R. § 1502.22). The agency must also carefully examine the environmental impacts of reasonable alternatives, including a no-action alternative. *See* 40 C.F.R. § 1502.14. The agency must also provide a full and fair discussion not only of anticipated significant environmental impacts, but also of measures that would avoid or minimize those impacts. *See* 40 C.F.R. § 1502(c). Finally, a central purpose of NEPA is to ensure that the public is fully informed about the impacts that a proposed action will have. *See* 40 C.F.R. §1502.1. Thus, where a draft environmental impact statement fails to provide sufficient information to allow for a meaningful analysis of those impacts, the agency must prepare and circulate a revised draft discussion of the relevant issues. *See* 40 C.F.R. § 1502.9(a).

III. THE DEIS DOES NOT SATISFY NEPA

A. THE DEIS PROVIDES AN INADEQUATE ANALYSIS OF NAVIGATION IMPACTS

The DEIS either ignores or glosses over the detrimental impacts the Project will have on marine navigation. As a result, the DEIS also fails to provide a meaningful discussion of the potential mitigation measures for those adverse impacts.

Below, The Town of Jupiter Island focuses on three navigation-related concerns that the FRA appears to have overlooked entirely and which should be addressed in a supplemental DEIS. Those concerns are:

- (1) The poor existing state of the St. Lucie and Loxahatchee bridges and the ways in which the Project will compound the existing navigation problems created by those bridges;
- (2) Profound flaws in the methodology the FRA has used to examine the Project’s navigation impacts at the St. Lucie, Loxahatchee and New River bridges; and

- (3) The multiple adverse environmental impacts that will stem from the boating delays and queues that the DEIS (even with its flawed methodology) recognizes the Project will cause.

Importantly, we have included in our discussion of the first topic the observations of former U.S. Coast Guard Captain Dana A. Goward. Captain Goward is a former Senior Executive Service official in the U.S. Coast Guard who was responsible for the permitting and regulation of over 18,000 bridges. As Captain Goward's observations make clear, the FRA should not approve the Project as it is currently conceived but should instead either reject the Project or, at a bare minimum, require significant revisions to AAF's handling of the St. Lucie, Loxahatchee and New River bridges. Captain Goward also provided input with respect to the comments below on the second and third topics.

1. The DEIS Fails to Address the Significant Flaws in the St. Lucie, Loxahatchee and New River Bridges

A central – and highly troubling – feature of the Project is that it will retain the existing St. Lucie and Loxahatchee bridges, despite the fact that both bridges are nearly 80 years old and already significantly impede navigation. *See* DEIS at S-9 to S-10 (explaining that there will be no changes to the structure or dimensions of either bridge); *id.* at 5-24 (noting that even without the Project 25% of the boats arriving at the Loxahatchee bridge experience delays). Indeed, the Project will actually cause *additional* delays at each bridge. DEIS at 5-21 & 5-24 (predicting that the Project will cause delays for 42% of the boat traffic at each bridge, significantly more than under the no-action alternative).

It is highly unlikely that neither the St. Lucie bridge nor the Loxahatchee bridge would be permitted today. Both bridges are more than 75 years old and local navigation needs have increased dramatically during that time. The existing bridges already negatively and unreasonably impact waterway traffic and those negative impacts will only be compounded by the Project, which will result in many additional bridge closings each day. Moreover, both bridges are also in advanced state of decay, which raises significant concerns about the safety of rushing more than 30 new high speed passenger trains over them each day. And those safety risks are compounded by changing climate conditions. As the FRA recognizes, changing climate conditions may lead to more frequent bridge closings. *See* DEIS at 5-75. The FRA needs to incorporate that important insight into its analysis of whether it is appropriate for the Project to retain the rusty and corroded St. Lucie and Loxahatchee bridges. Similar concerns exist for the New River Bridge.

Included below are Captain Goward's observations about each bridge. His comments make clear that: (a) the three bridges should be replaced in their entirety with new bridges that are not unreasonably obstructive of navigation, and (b) in the interim, strict, highly predictable scheduling of bridge openings and closings should be implemented.

Comments of Captain Goward

a) St. Lucie (Stuart) Bridge Operations

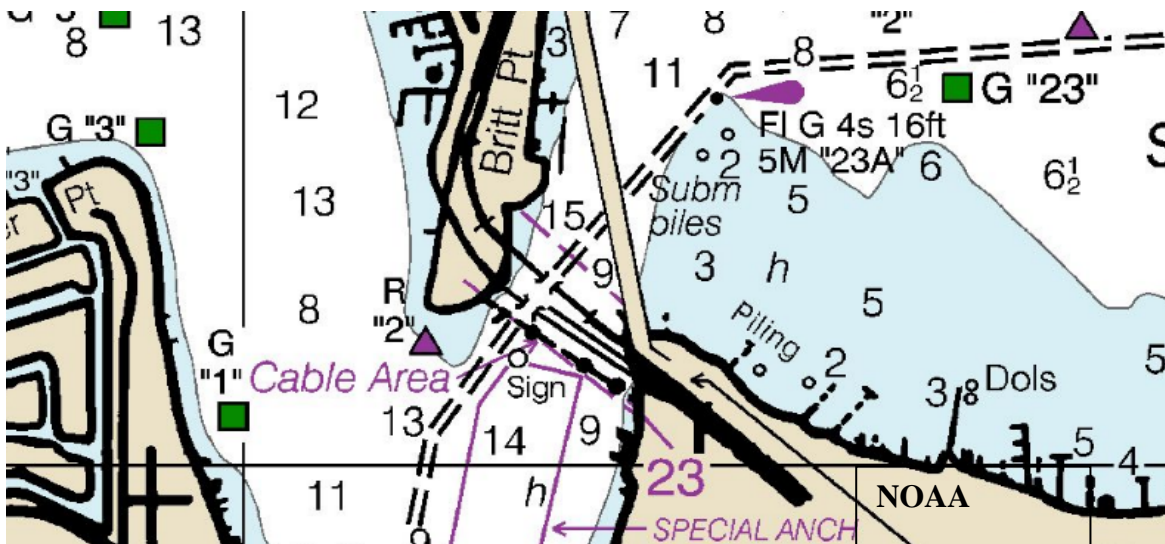


Summary:

Changes in rail traffic and maritime activity since 1938 have caused the Florida East Coast Railroad bridge at Stuart over the St. Lucie River to become an unreasonable obstruction to navigation.

The St. Lucie Bridge (or the “Stuart Bridge”) must either be completely removed or replaced with one that is not unreasonably obstructive.

In the interim, strict, highly predictable, long term scheduling of bridge openings and closings must be instituted to mitigate obstruction of the waterway.



Background:

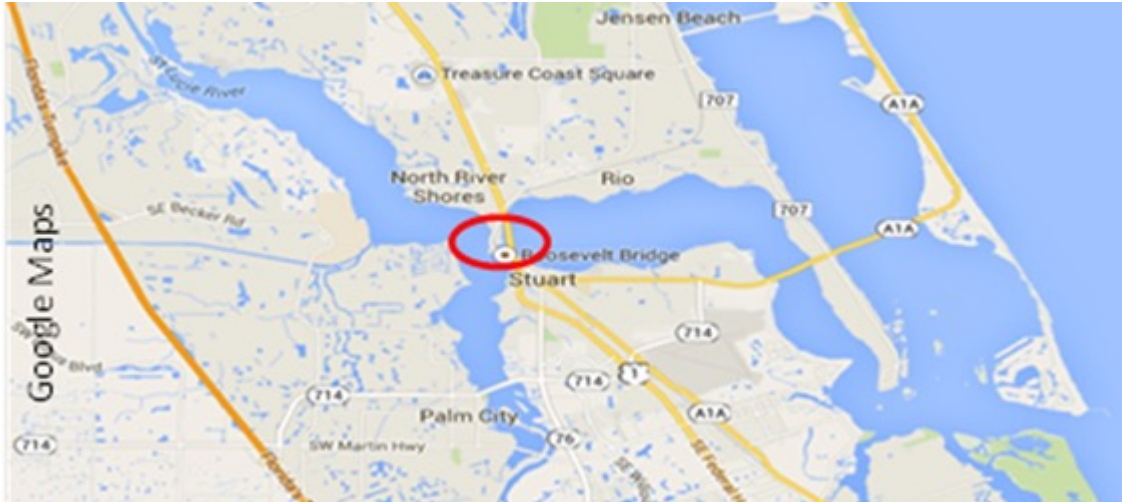
Waterway Description & Navigation Considerations

The waterway connects the communities of Palm City, Port St. Lucie, parts of Stuart, and the Okeechobee Waterway to the Atlantic and the north-south portion of the intra-coastal waterway. The Okeechobee Waterway connects the east and west coasts of Florida, is maintained at a depth of 8 feet and is suitable for both commercial tug-barge and recreational traffic. The 165 mile waterway from Stuart on the east coast to Ft. Myers on the west coast saves approximately 360 miles compared to rounding the Florida peninsula. The Army Corps of Engineers reports that approximately 10,000 vessels and 26,000 tons of cargo transit the waterways' nearby St. Lucie lock each year.



The navigable waterway passes through a 50' wide opening between the protected abutments of the FEC the railroad bridge. This is the narrowest point that mariners must navigate on the 154 mile Okeechobee Waterway where the canal varies from 80 to 100 feet wide (some of the locks are 50' wide, but they are not in open water, subject to cross currents and do not pose navigation safety issues).

When the bridge is closed it comes within 7' of the surface of the water, effectively closing the waterway - vessels that require less than 7' vertical clearance usually have very shallow drafts and do not need to use the channel portion of the waterway as they can safely pass under the bridges at numerous points. When the railroad bridge is open, waterway vertical clearance in the area is 65' under the adjacent Route 1 Highway Bridge, and 14' under the adjacent draw bridge on N. Dixie Highway. This drawbridge is manned by a bridge tender and will open upon demand.



As with any choke point between large bodies of tidal waters, currents are strong except for brief windows during slack tide.

Transiting through these three bridges is challenging for many vessels because of the configuration of the waterway. Vessels must pass through three narrow bridge openings, which are not perfectly aligned, within less than a quarter mile. As with any choke point between large bodies of tidal waters, currents are strong except for brief windows during slack tide. Captains of tug and barge operations report that they must time their transits carefully so as to arrive when the tide is changing and the current is at its weakest. And while smaller vessels are able to pass each other safely, transits of the quarter-mile gauntlet by vessels of any size limit the waterway to one way traffic.

Changes in Rail Traffic and Waterway Use

When the rail bridge was built, circa 1938, use of the waterway was much lower and trains were very infrequent. In the last 76 years:

- The population in St. Lucie and Martin counties has grown from a few thousand to over 350,000 full time residents. The winter population in many areas increases by 20%.
- The regional economy and lifestyle has shifted from mostly agriculture (pineapple farming) to waterway-oriented residential, and water-oriented commercial
- The Atlantic intra-coastal waterway was built and intersected with the St. Lucie River
- The Okeechobee Waterway was built connecting Ft. Myers, Palm City, Stuart, St. Lucie, the Atlantic intra-coastal waterway, and the Atlantic Ocean.
- Waterway use between the St. Lucie River west of the FEC rail bridge and points east has greatly increased. During one 53 day period almost 13,000 transits were observed. This equates to over 88,000 per year.
- The number of railroad bridge closures per day has greatly increased, and the closure times have gotten longer.

Waterway users from both sides of the bridge transit to use the waterways. Most of the 15 major marina and dockage space in the area is west (upstream) of the bridge. These vessels, and those transiting from the Okeechobee Waterway, must pass through the FEC rail bridge to access the Atlantic Ocean and/or the Atlantic intra-coastal waterway, and contribute to the estimated 88,000 transits per year.

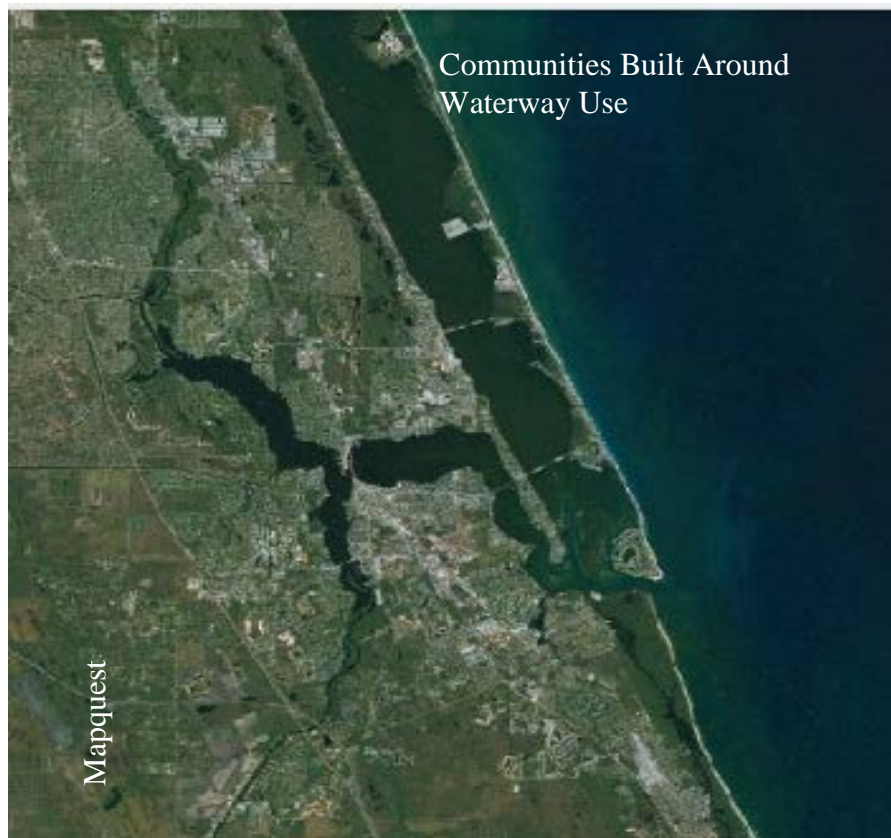
The Gulf Stream is often within 8 to 14 miles off the coast making offshore fishing particularly attractive.

According to the FECR, the bridge closes the waterway approximately 14 times each day and the closures last approximately 20 minutes. Local residents, though, report more extended closures and indicate that closures of an hour are not uncommon when the bridge does not open in between trains. None of the closures are scheduled, nor are they announced more than a few minutes in advance. Users also have no way of knowing how long the closure will last.

Bridge closures discourage users on both sides of the bridge from fully using the waterways, especially since the closures are at random and of unpredictable length.

The Bridge Currently Does Not Meet the Reasonable Needs of Navigation Because:

1. It interferes with the primary economic engine of the local economy and undermines the foundation upon which the local water-oriented communities were built.



Huge-water oriented communities in Stuart, Palm City, St. Lucie and the surrounding areas, marine services, marine retail, and all the supporting business and economic activity would not exist, but for the presence and usability of the waterways. The importance of this type of economic activity is essential to the entire state of Florida and is well documented. The Florida Oceans and Coastal Council reported that the states coastal counties contribute about 79 percent of the state's economic

productivity.²

Dr. James Cato, an economist, Florida Oceans and Coastal Council member, and former Director, School of Natural Resources and the Environment, University of Florida has testified that “[a]nything affecting coastal tourism, recreation and marine transportation has a huge impact on Florida's ocean economy [...] These sectors of economic activity represent 88 percent of Florida's ocean economy”³

Over 450 vessels per day transit through the bridge on peak days. These can be a varied combination of large and small recreational vessels and larger tugs with barges. This mixture increases wait times as larger vessels must pass through more slowly and do not safely allow for traffic in the opposite direction. Many vessels must loiter for some period waiting for the bridge to open, burning fuel, increasing air emissions, and wasting time. Loitering also increases the risk of vessels colliding with each other, running aground or being set upon the bridge by strong currents.

Rail bridge closures deter waterway use. While it is impossible to measure events that do not occur, it is, nevertheless, obvious that waterway use would be higher if the bridge never closed, and the surrounding community's economies would be that much stronger.⁴

2. The bridge's age and condition risks structural and mechanical failures that obstruct the waterway.



² Florida Oceans and Coastal Council, *Florida's Ocean and Coastal Economies Report, Phase II.*, at 6 (June 2008), available at http://www.floridaoceanscouncil.org/reports/Facts_and_FiguresII.pdf.

³ *Oceans and Coast Drive Florida's Economy*, **Environmental News Service**, (Oct. 1, 2008), <http://www.ens-newswire.com/ens/oct2008/2008-10-01-094.asp>.

⁴ While the local area is prosperous and growing, regional economic information is unfortunately not readily available. This information is crucial to public policy decisions, however, and such data and analyses must be incorporated into any decisions. For example, if an obstructive rail bridge decrements a \$20B/yr local economy by half a percent, that would be a cost shift from the private rail company to taxpayers of \$100M/yr. Similarly, if it degraded the value of \$50B in property by half a percent, that would be a loss of \$250M to taxpayers.

While information on past bridge malfunctions was not immediately available for this paper, a casual inspection of the bridge shows that it has suffered from lack of attention and maintenance.

As the 76 year-old bridge structure, materials and mechanisms continue to age and degrade, mechanical and material failures are certain.

3. Alternatives to obstructing the waterway exist, are available, and are feasible.

Waterway users have only one route available to them, the railroad has several.

Railroad tracks farther to the west are available, and in use, for both freight and passenger service.

An elevated rail bridge is feasible. Bridges with grades of up to 4% support freight operations in other locations.

Alternatives to using a 76 year-old, poorly maintained bridge that unreasonably obstructs the waterway are more expensive for the FECR. By not using these alternatives, though, FECR is imposing much greater costs on the citizens of the surrounding area.

4. Competent government agencies have determined that the bridge height does not provide for the reasonable needs of navigation.

If FECR were to seek a permit to build a new version of this bridge today, it would most certainly be denied.

US Coast Guard and US Department of Transportation policies specifically state preferences for fixed bridges over mobile bridges, whenever possible, as they minimize negative impacts to all transportation modes at these important intersections of systems.

When the State of Florida constructed the Route 1 bridge over the St. Lucie River and adjacent to the FEC rail bridge it made a deliberate decision that a fixed bridge at 65' over the waterway would meet the needs of both navigation and highway traffic. Highway traffic is more continuous than rail traffic, so the parallel is not exact. However, as rail traffic has increased, both in the number of trains and their length, the parallel between the two has become much closer. For example, local officials and waterway users report that the rail bridge often does not open between individual trains to allow navigation, even if it means another 20 minutes the waterway will be closed.

The FEC RR bridge is approximately 7' above the water when closed. The USCG Bridge Clearance Guide calls for bridges in this area to be 21' above the water when closed.

Guidance for bascule bridges on the Okeechobee waterway between St. Lucie locks and the Atlantic inter-coastal waterway – see U.S. Coast Guard, Bridge Guide Clearances, available at <http://www.uscg.mil/hq/cg5/cg551/bridge.asp> (stating that bridges at the guide height “will

ordinarily receive favorable consideration under the bridge permitting process (33 CFR Chapter 1, Subchapter J - Bridges) **as providing for the reasonable needs of navigation.”).**

The Bridge Currently, Before the Project, Does Not Meet the Reasonable Needs of Navigation. The Coast Guard must designate this bridge as an unreasonable obstruction to navigation under the Truman-Hobbs act and mandate its replacement.

Mitigation Pending Removal or Replacement of the Bridge

Until the bridge is removed or replaced, its negative impact on the waterway must be minimized. This requires that:

1. The waterway be open to navigation for at least 31 minutes each hour,
2. The length of openings allow passage of all vessels waiting,
3. The amount of time for any single closure does not exceed 15 minutes as this would discourage waterway use, and
4. The times that the waterway will be open are highly predictable and easily understood.

Openings

The law gives deference to waterways users because of their limited alternatives, and the multiple alternatives available to surface transportation.

The waterway must be open at least 31 minutes per hour, and for at least 15 minutes per opening.

Safe vessel transits are often limited by the narrow passage to one direction at a time, and the need for a slow to modest speed (no more than 10 to 15 knots). The length of the openings must allow passage for all vessels waiting on both sides to cross. With 88,000 transits per year and up to 450 per day, including large commercial vessels, waiting lines can be long. Less than 15 minutes would often be insufficient for vessels on both sides of the bridge to organize, accelerate, and individually pass under the bridge. Note that it is too narrow for safe two way traffic for many vessels.

Waiting for the bridge to open degrades the boating experience significantly, and can drive potential waterway users to just stay home. According to one source:

“Americans spend roughly 37 billion hours each year waiting in line. The dominant cost of waiting is an emotional one: stress, boredom, that nagging sensation that one’s life is slipping away. **The last thing we want to do with our dwindling leisure time is squander it in stasis.**”⁵

⁵ Alex Stone, *Why Waiting is Torture*, *New York Times* (Aug. 19, 2012), <http://query.nytimes.com/gst/fullpage.html?res=9B07E4D7113BF93AA2575BC0A9649D8B63>.

Informal interviews with users show that they consider a wait of 15 minutes or less reasonable. This is predicated upon the schedule of such waits being highly predictable so that users can structure their arrivals so as to avoid most closures altogether.

As mentioned earlier, vessels loitering and trying to position themselves for when the bridge opens unnecessarily waste fuel, have increased air emissions due to the additional fuel burn and typically low engine speed, and run greater risk of collision, grounding and being set upon the bridge by strong currents.

Predictability and Clarity

Safe and enjoyable waterway use requires time and preparation. Numerous items of equipment, some of which are time consuming to prepare and requires special transport, are often involved. It is also often a group activity, so schedules of multiple people must be coordinated, sometimes weeks in advance.

Minimizing the negative impact of rail bridge closures on waterway use requires that users have a long term predictable schedule of when the waterway will be open. This certainty will manage expectations, and allow users to adjust their activities and schedules accordingly.

It is also important that schedules be clear, easily understood and recalled from memory. For example: “The bridge will open on the hour and half hour, and stay open for 20 minutes.”

We request that the schedule for the waterway being open be published in the Federal Register as part of the rulemaking. Less preferred would be that the rulemaking require that the schedule be published at least 90 days in advance and that all schedules remain unchanged for at least 90 days. This is a change that should be made with or without the project.

b) Loxahatchee Bridge Operations

Summary:

Changes in rail traffic and maritime activity since 1935 have caused the Florida East Coast Railroad bridge over the Loxahatchee River to become an unreasonable obstruction to navigation.

The bridge must either be completely removed or replaced with one that is not unreasonably obstructive.

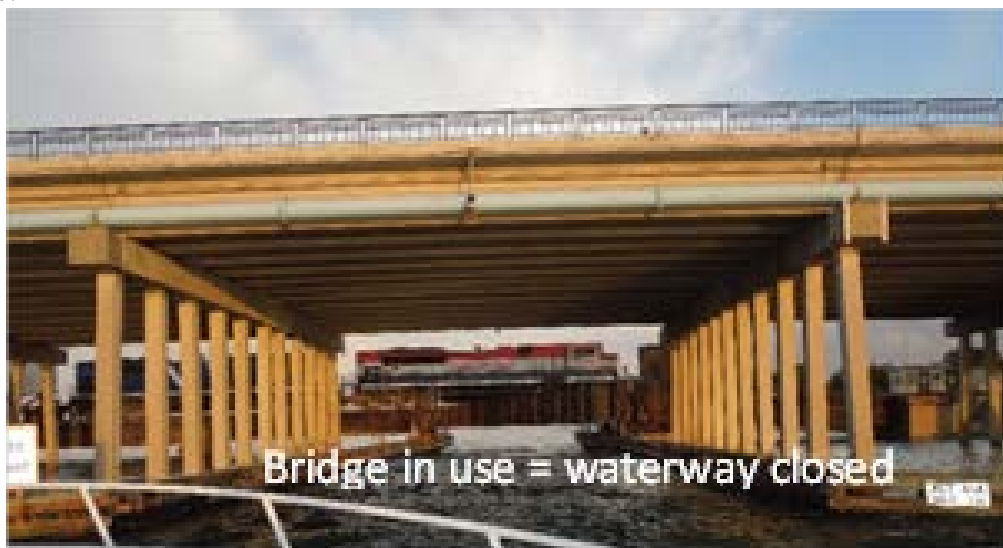
In the interim, strict, highly predictable, long term scheduling of bridge openings and closings must be instituted to mitigate obstruction of the waterway.



Background:

Waterway Description & Navigation Considerations

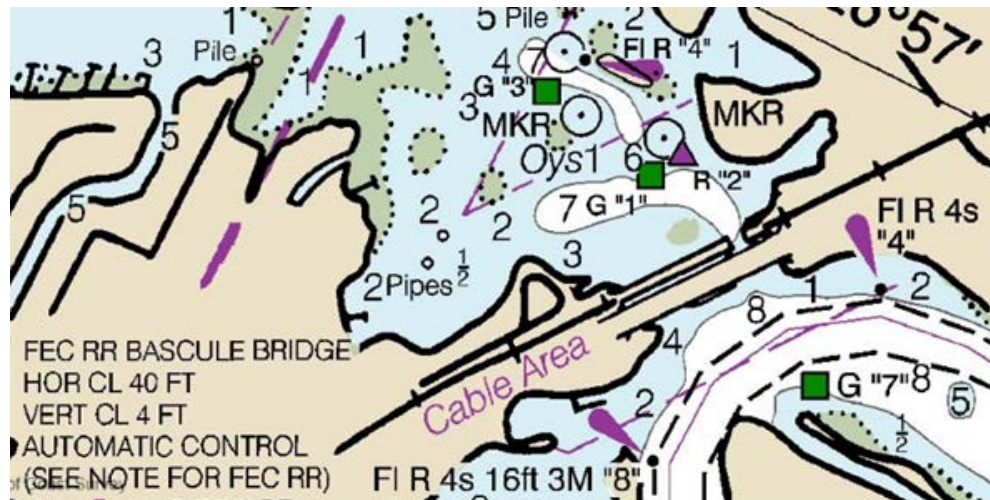
The navigable waterway passes through a narrow, 40' space between the protected abutments of the FEC railroad bridge. When the railroad bridge is open, waterway vertical clearance is 25' which is controlled by the adjacent Route 811 fixed highway bridge. The 3,000 mile intra-coastal waterway that traverses the Atlantic and Gulf coasts is immediately to the east of the two bridges. A third of a mile downstream the Route 1/A1A fixed highway bridge has 26' vertical clearance.



When the railroad bridge is in use the waterway into and out of the Loxahatchee River system is closed as the bridge comes within 4' of surface of the water.

Boats waiting for the bridge to open must often contend with strong tidal currents estimated at 7 to 8 knots. This is caused by the tide surging through a narrow river neck into and out of the very large basin and recreation area comprised of the three forks of the Loxahatchee River and the extensive, wide confluence area just west of the bridge. Boats waiting for the bridge to open can have difficulty avoiding being set onto the bridge, the shore, and each other.

The narrow passage and strong current beneath the bridge make it impossible, or at best unsafe, for even small vessels to pass each other. So traffic is almost always limited to one way at a time.



Changes in Rail Traffic and Waterway Use

When the rail bridge was built, circa 1935, use of the waterway was much lower and trains were very infrequent. In the last 79 years:

- The local population has grown by approximately 10,000%
- The regional economy and lifestyle has shifted from working agriculture to waterway-oriented residential, and water-oriented commercial
- The intra-coastal waterway was built and intersected with the Loxahatchee
- Waterway use between the Loxahatchee River system and other waterway areas has greatly increased. For 193 days during the first half of this year, the Jupiter Inlet District observed over 48,000 vessel transits through the rail bridge. This equates to over 90,000 a year.
- The number of railroad bridge closures per day has greatly increased, and the closure times have gotten longer.

While there are more than 1,200 boat slips upstream, waterway users from both sides of the bridge transit to use the waterway on the other side. Boaters from the east side of the bridge transit west to the broader and more sheltered areas of the river to water ski, jet ski, picnic on a wide and long sand bar at low-tide, and visit Jonathan Dickinson State Park. Boaters from the

west side transit east to use the intra-coastal waterway, visit marinas, patronize restaurants, and enter the Atlantic.

The Gulf Stream comes closer to shore in this area than anywhere else in the United States (between 1 and 2 miles) making offshore fishing particularly attractive. Average year-round water temperature is 78 degrees adding to the attractiveness of in-water and water-borne recreation.

According to the FECR, the bridge closes the waterway approximately 14 times each day for approximately 20 minutes. Residents report that the closures can be much longer, though, lasting up to an hour when the bridge does not open between trains. Data collected by the Jupiter Inlet District, though, shows that the number of times per day the waterway is open for navigation during daylight hours varies greatly between zero and 16. None of the closures are scheduled, nor are they announced more than a few minutes in advance. Users also have no way of knowing how long the closure will last.

Bridge closures discourage users on both sides of the bridge from fully using the waterways, especially since the closures are at random and of unpredictable length.

The Bridge Currently, Before the Project, Does Not Meet the Reasonable Needs of Navigation Because:

1. It interferes with primary economic engine of the local economy and undermines the foundation upon which the local water-oriented communities were built.

Huge-water oriented communities in Jupiter, Tequesta, southern Martin County and northern Palm Beach County, marine services, marine retail, and all the supporting business and economic activity would not exist, but for the presence and usability of the waterways.

The importance of this type of economic activity is essential to the entire state of Florida and is well documented. The Florida Oceans and Coastal Council reported that the states coastal counties contribute about 79 percent of the state's economic productivity.⁶

Dr. James Cato, an economist, Florida Oceans and Coastal Council member, and former Director, School of Natural Resources and the Environment, University of Florida has testified that "Anything affecting coastal tourism, recreation and marine transportation has a huge impact



⁶ See Florida Oceans and Coastal Council, *Florida's Ocean and Coastal Economies Report, Phase II*. at 6 (June 2008), available at http://www.floridaoceanscouncil.org/reports/Facts_and_FiguresII.pdf

on Florida's ocean economy[.] These sectors of economic activity represent 88 percent of Florida's ocean economy”⁷

Over 500 vessels per day transit through the bridge on peak days. Many, if not most, must loiter and wait for the bridge to open, burning fuel, increasing air emissions, and wasting time. Loitering also increases the risk of vessels colliding with each other, running aground or being set upon the bridge by strong currents.

Rail bridge closures deter waterway use. While it is impossible to measure events that do not occur, it is, nevertheless, obvious that waterway use would be higher if the bridge never closed, and the surrounding community's economies would be that much stronger.⁸

2. The bridge's age and condition has caused failures that obstructed the waterway. The risk of additional and more frequent obstructions is increasing.



Upon one occasion a large piece of metal fell from the bridge and obstructed the waterway. Because it was not visible from the surface, several boats struck the metal and reported minor damage. Requests to the railroad for it to be removed went unheeded. The large metal object was eventually cleared from the waterway by the Jupiter Inlet District.

Mechanical failures of the bridge mechanism have obstructed the waterway while it was being repaired.

Extended waterway closures have resulted from a faulty locking system or signal system. With the bridge in the down position, trains have repeatedly stopped short of the crossing

⁷ See *Oceans and Coast Drive Florida's Economy*, Environmental News Service, (Oct. 1, 2008), <http://www.ens-newswire.com/ens/oct2008/2008-10-01-094.asp>.

⁸ While the local area is prosperous and growing, regional economic information is unfortunately not readily available. This information is crucial to public policy decisions, however, and such data and analyses must be incorporated into any decisions. For example, if an obstructive rail bridge decrements a \$20B/yr local economy by half a percent, that would be a cost shift from the private rail company to taxpayers of \$100M/yr. Similarly, if it degraded the value of \$50B in property by half a percent, that would be a loss of \$250M to taxpayers.

for the engineer to dismount, walk up to the bridge to ensure it is locked down and safe to cross. For south-bound trains this also blocks all three streets exiting the City of Tequesta and has resulted in complaints to FECR by the mayor.

Very little to no preventive maintenance or care is evident to anyone walking out onto the bridge (the bridge is entirely accessible to casual pedestrians and even lacks land-side warning or “no trespassing” signs.)

As the 79 year-old bridge structure, materials and mechanisms continue to age and degrade, an increase in mechanical and material failures is certain.

3. Alternatives to obstructing the waterway exist, are available, and are feasible.

Waterway users have only one route available to them, the railroad has several.

Railroad tracks farther to the west are available, and in use, for both freight and passenger service.

An elevated rail bridge is feasible. Bridges with grades of up to 4% support freight operations exist in other locations.

US Coast Guard and US Department of Transportation policies specifically state preferences for fixed bridges over mobile bridges, whenever possible, as they minimize negative impacts to all transportation modes at these important intersections of systems.

When the State of Florida constructed the route 811/A1A bridge over the Loxahatchee and adjacent to the FEC rail bridge it made a deliberate decision that a fixed bridge at 25’ over the waterway would meet the needs of both navigation and highway traffic. Highway traffic is more continuous than rail traffic, so the parallel is not exact. However, as rail traffic has increased, both in the number of trains and their length, the parallel between the two has become much closer. For example, local officials and waterway users report that when individual trains are separated by 20 minutes or less, the rail bridge will not open to allow navigation between train crossings.

The FEC RR bridge is approximately 4’ above the water when closed. The USCG Bridge Clearance Guide calls for bridges on the adjacent intra-coastal waterway to be 21’ above the water when closed. *Guidance for bascule bridges on the Atlantic intra-coastal waterway between Jacksonville and Miami*— see U.S. Coast Guard, Bridge Guide Clearances, available at <http://www.uscg.mil/hq/cg5/cg551/bridge.asp> (stating that bridges at the guide height “will ordinarily receive favorable consideration under the bridge permitting process (33 CFR Chapter 1, Subchapter J - Bridges) as providing for the reasonable needs of navigation.”).

Alternatives to using a 79 year-old, poorly maintained bridge that unreasonably obstructs the waterway are more expensive for the FECR. However, by not using these alternatives, FECR is imposing much greater costs on the citizens of Tequesta, Jupiter and the surrounding area.

If FECCR were to seek a permit to build a new version of this bridge today, it would almost certainly be denied.

The Bridge Does Not Currently Meet the Reasonable Needs of Navigation Before the Project. The Coast Guard must designate this bridge as an unreasonable obstruction to navigation under the Truman-Hobbs act and mandate its replacement.

Mitigation of Negative Impact Pending Removal or Replacement of the Bridge

Until the bridge is removed or replaced, its impact on the waterway must be minimized. This requires that:

1. The waterway be open to navigation for at least 31 minutes each hour,
2. The length of openings allow passage of all vessels waiting,
3. The amount of time for any single closure does not exceed 15 minutes as this would discourage waterway use, and
4. The times that the waterway will be open are highly predictable and easily understood.

Openings

The law gives deference to waterways users because of their limited alternatives, and the multiple alternatives available to surface transportation.

The waterway must be open at least 31 minutes per hour, and for at least 15 minutes per opening.

Safe vessel transits are limited by the narrow passage to one direction at a time, and the need for a slow to modest speed (no more than 10 to 15 knots). The length of the openings must allow passage for all vessels waiting on both sides to cross. The Jupiter Inlet District has observed an average of 288 vessel bridge transits each day, and even more vessels would do so, but for the obstruction of the bridge. With over 500 transits per day on peak days, waiting lines can be long. Less than 15 minutes would often be insufficient for vessels on both sides of the bridge to organize, accelerate, and individually pass under the bridge (it is too narrow for safe two way traffic).

Waiting for the bridge to open degrades the boating experience significantly, and can drive potential waterway users to just stay home. According to one authority:

“Americans spend roughly 37 billion hours each year waiting in line. The dominant cost of waiting is an emotional one: stress, boredom, that nagging sensation that one’s life is slipping away. **The last thing we want to do with our dwindling leisure time is squander it in stasis.”⁹**

⁹ Alex Stone, *Why Waiting is Torture*, *New York Times* (Aug. 19, 2012), <http://query.nytimes.com/gst/fullpage.html?res=9B07E4D7113BF93AA2575BC0A9649D8B63>.

Informal interviews with users show that they consider a wait of 15 minutes or less reasonable. This is predicated upon the schedule of such waits being highly predictable so that users can structure their arrivals so as to avoid most closures altogether.

As mentioned earlier, vessels loitering and trying to position themselves for when the bridge opens unnecessarily waste fuel, have increased air emissions due to the additional fuel burn and typically low engine speed, and run greater risk of collision, grounding and being set upon the bridge by strong currents.

Predictability and Clarity

Safe and enjoyable waterway use requires time and preparation. Numerous items of equipment, some of which are time consuming to prepare and requires special transport, are often involved. It is also often a group activity, so schedules of multiple people must be coordinated, sometimes weeks in advance.

Minimizing the negative impact of rail bridge closures on waterway use requires that users have a long term predictable schedule of when the waterway will be open. This certainty will manage expectations, and allow users to adjust their activities and schedules accordingly.

It is also important that schedules be clear, easily understood and recalled from memory. For example: “The bridge will open on the hour and half hour, and stay open for 20 minutes.”

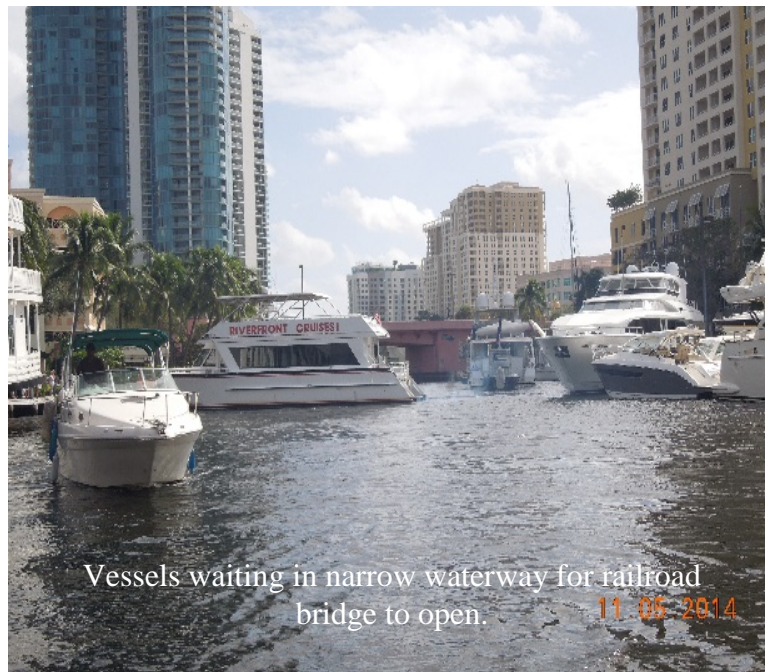
We request that the schedule for the waterway being open be published in the Federal Register as part of the rulemaking. Less preferred would be that the rulemaking require that the schedule be published at least 90 days in advance and that all schedules remain unchanged for at least 90 days. This is a change that should be made with or without the project.

c) New River Bridge Operations

Summary:

Changes in rail traffic, maritime activity, and the community since the bridge was first permitted in 1974 have caused the Florida East Coast Railroad bridge at Ft. Lauderdale over the New River to become an unreasonable obstruction to navigation.

The bridge must either be completely removed or replaced with one that is not unreasonably obstructive.



In the interim, strict, highly predictable, long term scheduling of bridge openings and closings must be instituted to mitigate obstruction of the waterway.

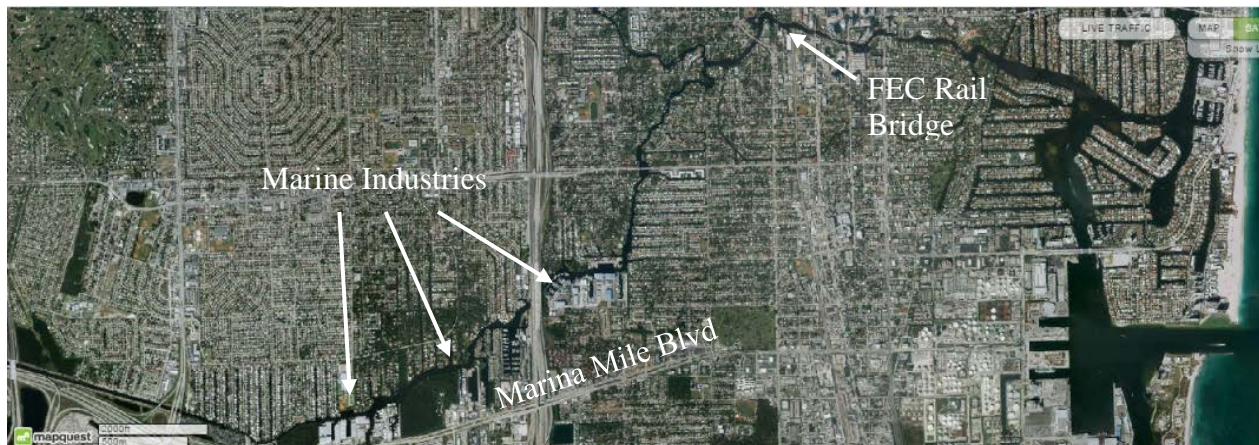
Background:

Waterway Description & Navigation Considerations

The New River is a naturally occurring and (by Florida standards) relatively deep waterway that originates in the Everglades and has been used for commercial transportation for over 100 years. In the area of greatest interest to this report, it is approximately 9 feet deep making it navigable by sizeable vessels for 8 miles from where it enters the Atlantic Ocean in the east to the last dockage for major vessels on the western reaches of its South Fork. The river provides excellent hurricane protection and connects the interior of Broward County, the Central Business District of Ft. Lauderdale, the north-south Atlantic intra-coastal waterway, and the Atlantic Ocean. It is used extensively for a wide range of marine activity including commercial industrial traffic associated with major yacht maintenance and storage, other commercial traffic such as water taxis and sightseeing vessels, marine construction vessels and barges, law enforcement/military vessels, and a high volume of recreational traffic. The waterway has been designated a “Broward Urban River Trail,” which encourages its use by small motorized and non-motorized vessels.¹⁰

The waterway is fairly narrow, though vessels over 200 feet long have safely transited the eight miles to the industrial centers in the west.

Many larger vessels transit with two smaller vessels, one each tethered to their bow and stern, to help ensure against a loss in steerage or propulsion, and to help the captain avoid other vessels and fixed obstacles.



The south fork of the New River west of the FEC RR Bridge is home to one of the largest concentrations of commercial marine operations I have ever seen (location of just some of the facilities are depicted on the above illustration). It includes the 50 acre Lauderdale Marine Center which bills itself as the largest yacht repair facility in the United States.

¹⁰ See Broward Urban River Trails, available at <http://www.burt.org/Frame.htm>.

A 214 foot vessel is reported to be the largest serviced to date in the facilities on the South Fork of the New River. Available services range from hauling 330 ton vessels out of the water for bottom maintenance, to engine replacements and cosmetic services (painting and finishing). In a 2006 report, the Marine Industries Association of South Florida (MIASF) found over 1,500 mega-yachts (80'+) in the region served by this commercial hub. It also found that when these vessels used a boatyard, the average (2006) invoice was for \$169,000.

A recent report by MIASF documents that, in Broward County (Ft. Lauderdale) alone, the marine industry is responsible for \$8.8B/year in economic impact, and over 100,000 jobs. A great part of Ft. Lauderdale's success at being "The Yachting Capital of the World" is undoubtedly its huge capacity for industrial and maintenance support of all kinds of recreational vessels, especially larger ones.

While the economic impact of marine activities on the New River is substantial, the potential for greater success, job creation, and economic development is continually threatened and/or stymied by the FECR bridge's frequent, unpredictable closures, and its poor reliability.

The western reaches of the New River also serve as a hurricane evacuation location for many large vessels. This provides value to the region, in and of itself, as most marine insurance companies require owners to have an evacuation plan and location as a condition of coverage. Thus, vessels from the entire US Eastern seaboard and around the Caribbean that may not have another reason to visit and transit the river benefit from its accessibility.

The FECR bridge (bridge 341.26) is downstream from the:

- Enormous and highly productive marine commercial and industrial hub on the South Fork of the New Rivers
- Numerous water-oriented communities
- Broward Center for the Performing Arts
- Museum of Discovery and Science & Imax Theatre
- Esplanade Park
- Historic Himmarshee Village & the Old Ft. Lauderdale Museum of History
- New River Inn
- Cooley's Landing (with live aboard dockage)
- South Fork - Secret Woods Nature Center
- Approximately 5,000 docks.



When closed, the FECR bridge rests 4' above the water and closes the river to navigation. The adjacent Andrews Avenue bridge is 21' above the water when closed. This allows the majority of the river traffic to transit beneath without the bridge needing to open. Note that the USCG guide height for bascule bridges in this area is 21' in the closed position.

Through credible and peer-reviewed modeling work, area planners and scientists region predict that sea levels along the SE Florida coast will rise 9 to 24 inches in the next 50 years (from 2010 to 2060).¹¹ This will likely result in the surface of the water coming into contact with the main bridge structure during storm surges from major weather events and during high water and storm water outflow events after tropical rain falls.

The 60' horizontal clearance through the bridge is the narrowest point on the New River, which is 100' or wider along its navigable length. All but the smallest vessels must confine themselves to one way, one at a time traffic when transiting through the bridge.

The river at the FECR bridge is subject to tidal currents, a river current that varies depending upon the amount of recent rainfall, and cross currents from storm water outflows on the north bank immediately downstream from the bridge. Tidal current on the river has been measured in excess of 4 knots, according to NOAA data.¹² Since the New River is connected to a major regional drainage canal under the jurisdiction of the US Army Corps of Engineers (and local sponsor South Florida Water Management District), high storm water discharge conditions - which in sub-tropic South Florida happen frequently - can cause the current to be much faster. Extreme storm events (such as hurricanes and major thunderstorm systems) can deliver enough water such that the level of the river at low tide approaches that of a normal high tide, and can effectively eliminate low tides for extended periods. The short term impact on the river's current, especially when added to an outgoing tidal flow, can be dramatic and turbulent. This makes navigation, and waiting for bridges to open, all that much trickier.



In addition to the current and narrow channel restricting vessels' ability to maneuver, mariners report (and this author witnessed) significant cross currents from periodic and unpredictable

¹¹ See Southeast Florida Regional Climate Change Compact, *A Unified Sea Level Rise Projection for Southeast Florida*, at iii (April 2011), available at <http://www.southeastfloridaclimatecompact.org/wp-content/uploads/2014/09/sea-level-rise.pdf> (last accessed Dec. 2, 2014).

¹² NOAA, Tides and Currents, available at http://tidesandcurrents.noaa.gov/get_predc.shtml?year=2014&stn=5484+Miami%20Harbor%20Entrance&secstn=F+Lauderdale,+New+River&sbfh=-0&sbfm=14&fldh=-0&fldm=01&sbeh=%2B0&sbem=28&ebbh=%2B0&ebbm=52&fldr=1.4&ebbr=0.8&fldavgd=005&ebbavgd=130&footnote= (last accessed Dec. 2, 2014).

storm water outfalls in very close proximity to the east side of the FEC rail bridge. These further complicate the ability to safely navigate, hold course, or hold position while waiting for the bridge to open.

Vessels speeds are limited by “no wake” restrictions along much of its length and several manatee zones.

Bridge Operation – Prior to the Project – Is Not In Accordance With Federal Regulations

Operation of the bridge does not conform to provisions in the Code of Federal Regulations (CFR) in several ways.

33 CFR 117.4 provides for an automated drawbridge to be kept open to navigation when not in use by a train. Local waterway users and neighbors report that the bridge is often closed for extended periods, frequently an hour or more, when no train is present.

22 CFR 117.42 states that, when an automated bridge operation is approved, “...a description of the full operation of the remotely operated or automated drawbridge will be added to subpart B of this part.” No such description is included in subpart B.

Since no “description of the full operation” is included in subpart B, the default requirement is in **33 CFR 117.5** which states that “...drawbridges must open promptly and fully for the passage of vessels when a request or signal to open is given in accordance with this subpart.” Since the bridge is untended, the visual and sound signals outlined in 33 CFR 117.15 are of no use, and no provision has been made for radio telephone communications. This writer was not able to find any method for making a request or giving a signal to open this bridge in the CFR, Coast Pilot, or any other publication. The bridge owner is in violation of federal regulations for not having and publicizing a method for mariners to signal for the bridge to open.

33 CFR 117.55 requires that the owner of each drawbridge post signs upstream and downstream of the bridge notifying waterway users of the operating scheme for the bridge. No such signs are present.

Notes:

1. The Federal Railroad Administration reports that the bridge closes 11 times a day for rail traffic with an average closure time of about 20 minutes.
2. Local waterway users report that the bridge is often down for much longer periods extending to an hour or more. This is attributed, in part, to a desire to not raise the bridge between trains, and that some trains stop on the tracks on either side of the bridge which signals the automatic system to keep the bridge down.

Vessel Traffic

No independent measurement of yearly vessel traffic in this section of the river was identified for reference during the preparation of this paper. This is an important missing datum that should be obtained as soon as possible by an independent government authority.

In spite of the apparent absence of reliable quantitative data, it is clear to even a casual observer that the section of the New River near the FECR bridge is an exceptionally busy waterway. For example, even though a majority of vessels are able to pass beneath the adjacent 21' high Andrews Avenue bridge without it opening, this bridge still opens about 1,000 times a month to allow larger vessels to pass. Assuming a 6:1 ratio of smaller vessels to larger ones makes an estimate of annual traffic about 84,000 transits per year.

It is still important to note, though, that even an accurate count of current traffic and transits does not include the amount of waterway and economic activity that is deterred by this bridge closing the waterway as often as it does. For example, Mr. William Walker, owner of "Water Taxi of Ft. Lauderdale" operates a fleet of 14 boats carrying over 440,000 passengers each year. His water taxis serve the area east of the bridge, but not the tourist and cultural area just west of the bridge that includes the Broward Center for the Performing Arts, Museum of Discovery and Science, Imax Theatre, Esplanade Park, Historic Himmarshee Village, and the Old Ft. Lauderdale Museum of History. These attractions would ordinarily be ideal water taxi stops. Unfortunately, frequent, unscheduled, and often extended rail bridge closings prevent such service as they would too often cause great delays and anger water taxi customers.

Changes in Rail Traffic and Waterway Use

The FEC Railroad has operated a bascule rail bridge over the New River in Ft. Lauderdale since 1912. The current rail bridge was permitted in 1974-5 and construction was complete in 1978. Since the current bridge was permitted, the marine industry and residential areas to the west have grown significantly. By example, the overall year-round population of the Broward County has doubled since 1978, from about 900K to 1.8M. And this does not include substantial seasonal increases and tourist visits.

Waterway users from both sides of the bridge transit to use the waterways on the other side. To the west there are extensive marine industrial support facilities, thousands of waterfront residences, and the numerous attractions and parks mentioned earlier. To the east lie the intra-coastal waterway, Port Everglades, and the Atlantic Ocean. Restaurants and other waterfront attractions can be found all along the length of the river.

As mentioned earlier, according to the FRA, the bridge closes the waterway approximately 11 times each day and the closures last approximately 20 minutes. Local waterway users report more extended closures and indicate that closures of an hour are not uncommon. None of the closures are scheduled, nor are they announced more than a few minutes in advance. Users also have no way of knowing how long the closure will last.

Bridge closures discourage users on both sides of the bridge from fully using the waterways, especially since the closures are at random and of unpredictable length.

The Bridge Before the Project Does Not Meet the Reasonable Needs of Navigation Because:

1. It interferes with a primary economic engine of the local economy and undermines the foundation upon which the local water-oriented communities were built.

“With 300+ miles of inland waterways and 50,000 registered yachts, Fort Lauderdale is dubbed ‘the Yachting Capital of the World’ . . . and home to the largest boat show in the world, the Fort Lauderdale International Boat Show.”¹³

Ft. Lauderdale prides itself on being yachting capital of the world. Sustaining that reputation and economic engine depends upon ready availability access to a wide range of industrial, engineering, maintenance and support services for those vessels. Access to almost all of these facilities is controlled by the FEC rail bridge over the New River.

The bridge also controls access to more than 5,000 docks at marinas and homes up river.

Many vessels must loiter for some period waiting for the bridge to open, burning fuel, increasing air emissions, and wasting time. Loitering also increases the risk of vessels colliding with each other, hitting and damaging vessels docked along the river, or being set upon the bridge by strong currents.

Rail bridge closures delay waterway users and deter future use (the water taxi that does not serve the attractions on the west side of the bridge is just one example). Every time the bridge closes and delays a vessel transit it negatively impacts a critical economic engine of the local economy, and reduces property resale values upstream.¹⁴

The importance of this type of economic activity is essential to the entire state of Florida and is well documented. The Florida Oceans and Coastal Council reported that the states coastal counties contribute about 79 percent of the state's economic productivity.¹⁵

Dr. James Cato, an economist, Florida Oceans and Coastal Council member, and former Director, School of Natural Resources and the Environment, University of Florida has testified that “Anything affecting coastal tourism, recreation and marine transportation has a huge impact on Florida's ocean economy[.] These sectors of economic activity represent 88 percent of Florida's ocean economy”¹⁶

¹³ Lena Katz, *Luxury in the Yachting Capital of the World*, **Huffington Post** (June 21, 2012), http://www.huffingtonpost.com/justlux/boatup-luxury-in-the-yach_b_1594873.html.

¹⁴ For example, if an obstructive rail bridge decrements a \$20B/yr local economy by half a percent, that would be a cost shift from the private rail company to taxpayers of \$100M/yr. Similarly, if it degraded the value of \$50B in property by half a percent, that would be a loss of \$250M to taxpayers.

¹⁵ Florida Oceans and Coastal Council, *Florida's Ocean and Coastal Economies Report, Phase II.*, (June 2008) at 6, available at http://www.floridaoceanscouncil.org/reports/Facts_and_FiguresII.pdf.

¹⁶ *Oceans and Coasts Drive Florida's Economy*, **Environmental News Service** (Oct. 1, 2008), <http://www.ens-newswire.com/ens/oct2008/2008-10-01-094.asp>.

2. Alternatives to obstructing the waterway exist, are available, and are feasible.

While waterway users have only one route available to them, the railroad has several. These include:

- Using existing rail bridges to the west. The New River is crossed by two other rail bridges much further upstream that avoid obstructing much of the activity on the waterway. These bridges carry regional passenger (Amtrak), commuter (Tri-Rail) and freight traffic.
- Developing a new rail corridor that is west of the New River entirely. The State of Florida is exploring a rail corridor along US 27 that would greatly increase capacity for the region, while at the same time bypassing numerous existing conflicts with water and vehicle traffic.¹⁷
- Shipping freight along a parallel, but otherwise nearly identical route, by barge. Marine transport is generally recognized as the most efficient, economical, safest, and most environmentally friendly method of moving cargo,¹⁸ and “marine highways” are being investigated by regional, state, and federal planners.
- Replacing the bridge with a higher one that does not unreasonably obstruct navigation, or a tunnel. The State of Florida has estimated the costs would be \$53M for a fixed bridge with 65’ vertical clearance, \$66M for a drawbridge that had 45’ vertical clearance when closed, and a \$530M for a tunnel.¹⁹

Note: A tunnel option should not be dismissed merely because of capital cost as this would be amortized over an exceptionally long life-cycle. There are precedents in the immediate area for tunnels being selected as the best transportation option:

- The Henry Kinney Tunnel on U.S. 1 in Fort Lauderdale, which replaced a low-level drawbridge in 1960.
- The \$1B Port Miami tunnel that recently connected Miami's MacArthur Causeway to the Port of Miami

¹⁷ Angel Streeter, *Railroad coming to U.S. 27? A new vision emerges*, **Sun Sentinel** (May 18, 2013), http://articles.sun-sentinel.com/2013-05-18/news/fl-us-27-rail-expansion-study-20130516_1_freight-trains-rail-corridor-rail-line.

¹⁸ Nationals Waterways Foundation, *A Modal Comparison of Domestic Freight Transportation Effects on the General Public: 2001-2009* (Feb. 2012), <http://www.nationalwaterwaysfoundation.org/study/FinalReportTTI.pdf>

¹⁹ Michael Turnbull, *Bridge or tunnel considered for proposed commuter train to cross New River in downtown Fort Lauderdale*, **Sun Sentinel** (Oct. 5, 2010), http://articles.sun-sentinel.com/2010-10-05/news/fl-fec-new-river-bridge-tunnel-20101005_1_boat-owners-andrews-avenue-bridge-or-tunnel.

Some of these alternatives are more expensive for the FECR. By not using them, though, the FECR is imposing much greater costs on the citizens of the area.

3. Competent government agencies have determined that the bridge height does not provide for the reasonable needs of navigation.

If FECR were to seek a permit to build this bridge today, it would most certainly be denied.

US Coast Guard and US Department of Transportation policies specifically state preferences for fixed bridges over mobile bridges, whenever possible, as they minimize negative impacts to all transportation modes at these important intersections of transportation systems.

In 2009, the State of Florida examined alternatives to the FEC rail bridge over the New River and developed the two bridge and tunnel options mentioned earlier because the state recognized the problems posed by the bridge and that it did not meet the reasonable needs of navigation.

The FEC RR bridge is approximately 4' above the water when closed. The USCG Bridge Clearance Guide calls for bridges in this area to be 21' to 25' above the water when closed. *Guidance for bascule bridges on the nearby Atlantic inter-coastal waterway and Miami River – see U.S. Coast Guard, Bridge Guide Clearances, available at <http://www.uscg.mil/hq/cg5/cg551/bridge.asp>* (stating that bridges at the guide height “will ordinarily receive favorable consideration under the bridge permitting process (33 CFR Chapter 1, Subchapter J - Bridges) as providing for the reasonable needs of navigation.”).

The Bridge Does Not Meet the Reasonable Needs of Navigation. The Coast Guard must designate this bridge as an unreasonable obstruction to navigation under the Truman-Hobbs act and mandate its replacement.

Mitigation Pending Removal or Replacement of the Bridge

Until the bridge is removed or replaced, its negative impact on the waterway must be minimized. This requires that:

1. The waterway be open to navigation for at least 40 minutes each hour,
2. The length of openings allow passage of all vessels waiting,
3. The amount of time for any single closure does not exceed 15 minutes as this would discourage waterway use, and
4. The times that the waterway will be open are highly predictable and easily understood.

Openings

The law gives deference to waterways users because of their limited alternatives, and the multiple alternatives available to surface transportation.

The waterway must be open at least 40 minutes per hour, and for at least 15 minutes per opening.

Safe vessel transits are usually limited by the narrow passage to one direction at a time, and the need for a slow, no-wake speed in what is also in a manatee zone. The length of the openings must allow passage for all vessels waiting on both sides to cross. With so many transits per year, including large commercial vessels, waiting lines can be long, especially during peak periods. Less than 15 minutes would often be insufficient for vessels on both sides of the bridge to organize, accelerate, and individually pass under the bridge.

Bridge closures directly impact the safety and costs of the commercial transits to and from the western commercial center. Delays have both a direct cost in time, fuel, additional hazards waiting in the river, etcetera, but also ripple through the entire commercial enterprise by throwing off schedules, work plans, and so on. In its Truman-Hobbs study of the waterway, the USCG should examine the cost of lost business to commercial marinas caused by operators who choose to go elsewhere due to the risk of transiting the New River and its obstructive bridge.

Waiting for the bridge to open also degrades the boating experience significantly, and can drive potential waterway users to just stay home or relocate where they moor their vessel. According to one authority:

“Americans spend roughly 37 billion hours each year waiting in line. The dominant cost of waiting is an emotional one: stress, boredom, that nagging sensation that one’s life is slipping away. **The last thing we want to do with our dwindling leisure time is squander it in stasis.**”²⁰

Informal interviews with users show that they consider a wait of 15 minutes or less reasonable. This is predicated upon the schedule of such waits being highly predictable so that users can structure their arrivals so as to avoid most closures altogether.

As mentioned earlier, vessels loitering and trying to position themselves for when the bridge opens unnecessarily waste fuel, have increased air emissions due to the additional fuel burn and typically low engine speed, and run greater risk of collision, grounding and being set upon the bridge or shore by strong currents. Collectively this inconvenience amounts to decline in property and business value.

Predictability and Clarity

Safe and efficient (and in the case of recreational users, enjoyable) waterway use requires time and preparation. Numerous items of equipment, some of which are time consuming to prepare and require special transport, are often involved. It is also often a group activity, so schedules of multiple people and organizations must be coordinated, sometimes weeks in advance.

²⁰ Alex Stone, *Why Waiting is Torture*, **New York Times** (Aug. 19, 2012), <http://query.nytimes.com/gst/fullpage.html?res=9B07E4D7113BF93AA2575BC0A9649D8B63>.

Minimizing the negative impact of rail bridge closures on waterway use requires that users have a long term predictable schedule of when the waterway will be open. This certainty will manage expectations, and allow users to adjust their activities and schedules accordingly.

It is also important that schedules be clear, easily understood and recalled from memory. For example: “The bridge will open on the hour and half hour, and stay open for 20 minutes.”

We request that the schedule for the waterway being open be published in the Federal Register as part of the rulemaking. Less preferred would be that the rulemaking require that the schedule be published at least 90 days in advance and that all schedules remain unchanged for at least 90 days. This is a change that should be made with or without the project.

2. *The Methodology the FRA Used to Examine the Project’s Navigation Impacts is Profoundly Flawed and Understates the Project’s Adverse Navigation Impacts*

Although the DEIS recognizes that vessel wait times and queue lengths will increase at the St. Lucie, Loxahatchee and New River bridges (*see, e.g.*, DEIS at 5-15) it nevertheless concludes that those impacts will have “no adverse economic impacts to marine jobs, economic growth, or development.” *Id.* The DEIS’ conclusion is flawed because the FRA has severely underestimated the extent to which the Project will harm navigation at the St. Lucie, Loxahatchee and New River Bridges.

To assess the Project’s impacts on navigation, the FRA relied on a consultant’s study – the “Navigation Discipline Report” – prepared for AAF by AMEC Environment & Infrastructure, Inc. *See* DEIS Appendix 4.1.3-C. That study – and the FRA’s use of the study – suffers from the following **seven** flaws that render the FRA’s navigation analysis wholly unreliable and inconsistent with the Agency’s obligation to ensure the “professional integrity” of its analysis. 40 C.F.R. § 1502.24.

First, the FRA examined navigation impacts only in 2016, not any of the later years during which the Project will be operational. *See* DEIS at 5-18. That truncated approach ignores harms that will be suffered for years to come. It also ignores any increases in recreational and commercial boating that may occur in the future. That approach is not consistent with the Agency’s obligation to make a reasonable forecast of what will happen in the future.

Second, the FRA also failed to establish an appropriate baseline against which to measure the impacts of the Project. To the contrary, the Navigation Discipline Report uses three different baselines – one for each bridge – without any explanation of why that is appropriate. *See* Navigation Discipline Report at 2-10.

Third, the Navigation Discipline Report claims that vessels can pass through the bridge crossing in less than 7 seconds. *See* Navigation Discipline Report at 2-10. But that is based solely on crossing time and ignores the time that will be required to accelerate from a standing position

when the bridge is closed. In sum, it ignores how the vessels will actually move when the Project is operational.

Fourth, the FRA and AAF's consultant have evaluated the Project's impacts under the rosiest of assumptions, including that the trains will operate properly without delays or incidents on the bridges. That approach cannot be reconciled with the FRA's own conclusion that changing climate conditions are likely to cause problems with bridge infrastructure. It also defies common sense. The FRA should base its projections of anticipated impacts on what is reasonably foreseeable, not on the "absolute best case" scenario.

Fifth, the FRA and AAF's consultant appear not to have collected data on daily boat traffic from either the Jupiter Inlet District or the Treasure Coast Regional Planning Council.

Sixth, the FRA appears to have concluded that the navigation impacts are minimal based on "average" wait times, rather than the total number of vessels that will be forced to wait or the total aggregate waiting time of all vessels. The DEIS provides no justification for such an approach, which does nothing but gloss over the fact that the Project will indisputably cause greater inconvenience for more boats, as documented on Pages 5-21, 5-24 and 5-26 of the DEIS.

Seventh, the FRA has prematurely rejected the idea of requiring AAF to replace the existing St. Lucie, Loxahatchee and New River bridges on the grounds that such a project would be too costly. See DEIS at 5-27. In doing so, the FRA has provided no cost data that would justify such a conclusion. To the contrary, the DEIS says: "The use of elevated bridge structures would result in significant cost increase; preliminary cost estimates indicate at least an increase in costs of two to three times planned activities." DEIS at 5-27. Nowhere does the DEIS provide reliable estimates of what it would cost to replace just the St. Lucie, Loxahatchee and New River bridges. Publicly reported bridge construction estimates suggest that the cost of building three new elevated bridges would be far, far less than the \$1.6 billion loan that AAF has requested – and nowhere close to "two to three" times that amount. In particular, the Fort Lauderdale *Sun Sentinel* reported in October 2010, that the cost of building a new bridge over the New River could cost as little as \$53 million – a small fraction of the cost of AAF's \$1.6 billion "planned activities."²¹

3. *The DEIS Ignores the Adverse Environmental Impacts That Stem From the Increased Vessel Queues and Delays that the Project Will Cause*

Despite the flaws (discussed above) in the FRA's study of the Project's navigation impacts, the DEIS nevertheless confirms that the Project (even under the rosiest of assumptions) will lead to significantly more boats idling at the St. Lucie, Loxahatchee and New River bridges. See DEIS at 5-21, 5-21 and 5-26 (noting that 76% of the boats passing under the New River bridge will be delayed because of the Project). The increase in boat idling will produce at least two reasonably foreseeable adverse environmental impacts: (a) adverse air quality impacts, and (b) more vessel collisions. But the DEIS nowhere mentions those impacts let alone takes a "hard look" at them.

²¹ Michael Turnbull, *Bridge or tunnel considered for proposed commuter train to cross New River in downtown Fort Lauderdale*, *Sun Sentinel* (Oct. 5, 2010), http://articles.sun-sentinel.com/2010-10-05/news/fl-fec-new-river-bridge-tunnel-20101005_1_boat-owners-andrews-avenue-bridge-or-tunnel.

First, the FRA has improperly ignored the adverse air quality impacts that will result from more boat idling. As the DEIS explains: “Motor vehicles emit CO₂ at high rates when they are operating at low speeds or idling in queues.” DEIS at 5-38. The same concern exists when marine vessels idle at length in long queues. Yet that is exactly what the Project is likely to cause. See DEIS at 5-21 & 5-24 (projecting that the total percentage of boats waiting in queues will triple at the St. Lucie bridge and nearly double at the Loxahatchee bridge). In these circumstances, the FRA must prepare a supplemental DEIS that addresses the impact of the Project on local air quality.

Second, the FRA has also improperly ignored the risk of more boat collisions – and the harms they bring, including not only more oil spills but also injuries and fatalities. Just as increased motor vehicle congestion can be reasonably expected to lead to more motor vehicle collisions, so too can increased marine vessel congestion be expected to lead to increased marine vessel collisions. Yet this topic receives no meaningful discussion in the DEIS. There is, for example, no projection of the number of boating accidents likely to occur and no projection of the amount of oil that may be spilled in Florida’s rivers as a result of those accidents. This is true even though the Navigation Discipline Report itself discloses facts that telegraph the ways in which the Project will increase the risk of marine vessel collisions. It notes, for example, that boats *already* try passing under the various draw bridges when those bridges are in the process of opening and closing. See Navigation Discipline Report at 2-10. Since the bridges will be opening and closing far more often if the Project goes forward, there will likely be many more opportunities for boats to crash into the bridges as they open and close. In all events, the FRA must prepare a supplemental DEIS that takes a hard look at that issue. The FRA needs to project what accidents are likely to occur, when they are likely to occur and what impacts they are likely to have, and it should compare those projections to what is likely to happen under reasonable alternatives.

4. The FRA Has Prematurely Rejected the Idea of Requiring AAF to Install Elevated Replacement Bridges

Perhaps the most troubling feature of the DEIS’s navigation discussion is that despite all the manifest problems with the existing St. Lucie, Loxahatchee and New River bridges – to say nothing of the ways the Project will make those problems worse – the FRA appears to have already improperly concluded that it is not “feasible” to replace those bridges with elevated structures. See DEIS at 5-27 (rejecting the idea of replacing all the bridges). The FRA has failed to offer persuasive reasons why new elevated bridges should not be considered for the St. Lucie, Loxahatchee and New River rail crossings, beyond the cost to AAF and failure to meet AAF’s claimed schedule of construction.

B. THE DEIS PROVIDES AN INADEQUATE ANALYSIS OF CLIMATE-RELATED RISKS

As noted above, although the DEIS recognizes the threats that climate-change poses to Florida’s eastern coast, it makes no attempt to integrate those threats into the FRA’s evaluation of how the Project will impact safety and navigation. The proposed coastal route would be far more

vulnerable to rising sea levels and storm surges than the alternative CSX route. However, the DEIS fails to assess the alternatives' susceptibility or lack thereof to the effects of climate change. The failure to undertake a more meaningful analysis of the Project's climate-related vulnerabilities is not consistent with President Obama's November 2013 Executive Order calling on all federal agencies to examine ways of promoting climate resiliency.²²

Other federal and state agencies have not hesitated to require project proponents to provide detailed information about climate-related risks and/or measures for mitigating those risks. For example, on November 24, 2014, the Federal Regulatory Energy Commission directed an applicant seeking approval to construct a liquefied natural gas facility in a coastal area to: (i) "[d]escribe potential storm surge impacts on the Project area," (ii) "explain how the facility will be designed and protect for a 500 year return hurricane storm considering wind and wave effects, regional subsidence and sea level rise," and (ii) discuss "how design components would avoid or minimize flooding, wind, and other storm impacts."²³ The FRA's DEIS for the AAF Project contains no comparable information about storm risks or ways the Project will be designed to minimize storm-related flooding and damage. The Agency should issue a supplemental DEIS that addresses this information.

C. THE DEIS OMITTS CRITICAL INFORMATION ABOUT THE PROJECT

In 2003, the Florida High Speed Rail Authority briefly examined the environmental impacts of four potential high speed rail routes between Orlando and Miami and concluded that of those four potential routes the route that AAF's high speed passenger train will traverse was the *worst* in terms of environmental impacts.²⁴ But this critically important fact finds no mention in the FRA's DEIS for the Project. The omission is important, but also emblematic of more serious problems. Most notably, the DEIS omits information that the public – and the Agency – requires to evaluate whether AAF's assertions about the Project's commercial viability are realistic. But what little the DEIS does reveal about the Project's underlying economic and operating assumptions suggests that those assumptions are unrealistic and inconsistent on their face, if the DEIS had disclosed them.

1. The DEIS Fails to Disclose, Let Alone Evaluate, Essential Information About AAF's Economic Model

A central premise of the DEIS is that the Project will provide commercially-viable privately-run high speed passenger rail service between Orlando and Miami. *See, e.g.*, DEIS at 3-10 (concluding that AAF's preferred route "would provide a trip time consistent with the ridership target needed to sustain a viable private enterprise.") That premise underlies several conclusions in the DEIS, including: (1) the FRA's decision to exclude the alternative CSX route from serious consideration, *see* DEIS at 3-7 & 3-10; (2) the FRA's conclusion that the bulk of AAF's

²² *See* Exec. Office of the President, *Executive Order – Preparing the United States for the Impacts of Climate Change* (Nov. 1, 2013), available at <http://www.whitehouse.gov/the-press-office/2013/11/01/executive-order-preparing-united-states-impacts-climate-change>.

²³ *See* FERC Letter to Louisiana LNG Energy, LLC in Docket Number PF14-17, Paragraphs 67k, 67h & 70 (Nov. 24, 2014), available at <http://elibrary.ferc.gov/idmws/search/advResults.asp>.

²⁴ *See* Florida High Speed Rail Authority, *Orlando-Miami Planning Study Executive Summary* at 7 (Mar. 2003), <http://www.floridabullettrain.com/fhsra/uploaddocuments/p25/Exec%20Summary%20FINAL1.pdf>

intercity passengers will be diverted from cars, *see* DEIS at S-9; and (3) the conclusions that flow from point (2), such as that the diversion of car drivers will result in improved air quality and reduced vehicular accidents, *see* DEIS at 5-33 & 5-134. The DEIS forecasts that the Project will remove 336,000 cars from the road (69% of AAF's forecasted ridership) by 2016 and 1.35 million cars from the road by 2030. DEIS at 3-47. How can the agency predict the specific number of cars that will be taken off the road without providing the single most important factor in ridership, the suggested ticket price? No average Orange or Palm Beach County family will choose taking an AAF train instead of driving to Miami or Orlando unless it makes economic sense.

Nowhere does the DEIS disclose sufficient information about AAF's ticket prices and economic model to determine whether the document's central premise is correct. Simply put, although the DEIS asserts that "[t]he economic viability of the Project is dependent on ridership," DEIS at 3-5, it omits the very information that is essential to evaluating whether the Project will in fact attract a sufficient supply of riders. More specifically, the DEIS is completely devoid of any discussion of two critical topics: (1) ticket prices, and (2) the whipsaw in which AAF has placed itself with respect to ticket prices, as low ticket prices to entice riders creates serious problems for repaying the FRA's RRIF loan. Similarly, if ticket prices are relatively higher and realistic in terms of the amounts needed for repayment of the loan, then train ridership will not achieve claimed numbers and car abandonment will not occur.

First, the DEIS nowhere discloses any information, even in the form of a range of prices that AAF may charge for tickets, although that information is surely relevant to a judgment that the Project will attract riders and the public has the expertise to evaluate it instantly. The omission is especially troubling given that the widely divergent publicly-available information about AAF's plans. As of December 2, 2014, AAF's website for the Project said "pricing has yet to be determined."²⁵ But AAF clearly disclosed this information and its ridership study to its potential *investors*. What is unclear is (a) whether the Agency examined this information at all, (b) why it did not provide any of this information to the Project's potential *riders*, and (c) why it failed to engage in any discussion of what various ticket prices imply for the potential success of the Project. It is highly troubling that the FRA accepted AAF's ridership assertions based solely on the "summary" of the ridership study found at Appendix 3.3-F of the DEIS, without examining, let alone sharing with the public, the actual ridership study.

Second, the DEIS fails to examine the extent to which AAF has put itself in a whipsaw with respect to ticket prices and repayment of the FRA's proposed loan. More specifically, the DEIS fails to consider whether AAF's prices will be high enough for AAF to repay its debt while staying low enough to attract sufficient riders to fill its trains. That oversight is highly troubling given that so many of the DEIS's conclusions hinge on the self-proclaimed assumption that the Project will be commercially viable.

These points are well-made in a November 17 *Palm Beach Post* column by Frank Cerabino, "*All Aboard Florida's ridership estimates a field of dreams.*" Among his many points, Mr. Cerabino states the following:

²⁵ All Aboard Florida, *All Aboard Florida: Train FAQs*, available at <http://www.allaboardflorida.com/facts/faqs.html> (last accessed Nov. 21, 2014).

“What will make tourists line up to spend about \$50 per person for a round-trip ticket between Miami and West Palm Beach? Maybe some things will. But to make these ridership numbers work, you’d need 1.94 million tourists lining up for the higher-priced version of South Florida rail travel every year. And if you divide that by 365 days in a year, and then divide again by the 32 daily trains, you get 166 tourists on each train between Miami, Fort Lauderdale and West Palm Beach. All year long. For every train . . . And these estimates are the conservative ones. If you look at All Aboard Florida’s rosiest projection of 5.1 million annual riders in 2019, that would put an average of 437 people on each of the 400-seat trains all year long.”²⁶

2. *The DEIS Presumes Travel Times That Are Unrealistic*

The DEIS recognizes that travel time is one of the most important factors in choosing a form of transportation and contends that one of the attractive features of the Project is that “[t]rip times would meet the 3-hour target” needed for private intercity passenger service to be commercially viable. DEIS at 3-11. But the DEIS is unduly rosy about the speed of the anticipated AAF passenger trains. As a threshold matter, the conclusion that the trip will take only 3 hours assumes that each train will stop for no more than one minute at each station. DEIS at 3-45. Yet that assumption seems highly implausible on its face. No passenger train travelling at anywhere near full capacity will be able to arrive at a stop, allow many of its passengers to exit the train with their luggage, and have all the boarding passengers enter the train in just one minute.

The DEIS also in explicably ignores total travel time – which necessarily includes not just the length of the train ride but also the time required to get to the station and from the station to the final destination. We believe this total failure to make any estimate of this additional time renders the DEIS impermissibly incomplete. How can FRA or AAF argue that a theoretical passenger arriving at the Orlando train station has completed their journey with no additional time estimate to reach destinations such as the Disney or Universal properties, or downtown Orlando? The time estimate to arrive at an AAF station and to reach the time destination is critical. Equally important, the DEIS makes no mention of the possibility that safety measures will be implemented that significantly delay the passenger trains. For example, the DEIS does not explore the possibility of imposing speed limits at the nearly 350 at-grade crossings included in the Project corridor, although such a possibility should surely be considered.

3. *AAF’s Profits Should Not be FRA’s Primary Concern*

Another troubling feature of the DEIS is that it frequently emphasizes AAF’s potential profits over all other concerns. The Agency’s hasty dismissal of three possible alternative routes – the CSX Route Alternative, the Florida Turnpike Route Alternative and the I-95 Route Alternative – displays this quality. The DEIS recognizes, for example, that some of those routes would also achieve the 3-hour target travel time, but nevertheless dismisses them as reasonable alternatives

²⁶ See Frank Cerabino, *All Aboard Florida’s ridership estimates a field of dreams*, **Palm Beach Post** (Nov. 17, 2014), http://www.mypalmbeachpost.com/news/news/state-regional/cerabino-all-aboard-floridas-ridership-estimates-a/nh82M/?icmp=pbp_internallink_textlink_apr2013_pbpstbtomyppbp_launch.

because, among other reasons, it would allegedly be too costly and time consuming for AAF to develop them. *See* DEIS at 3-10 to 3-11. Likewise, with respect to bridge safety, although the Coast Guard requested that AAF evaluate alternatives that would raise certain bridges, the FRA has in more or less final language dismissed elevating bridges as too costly and too time consuming – *for AAF*. In particular, the Agency has “determined that the significant delays, costs, and risks associated with the use of elevated structures make raising any of the corridor bridges not feasible.” DEIS at 5-27 (emphasis added). The residents of communities along the track and those who operate vessels on the impacted waterways deserve more of an explanation from a federal agency charged with such a major project. The DEIS explanation should be changed to read: “AAF’s desire for financial gain, made possible through \$1.6 billion in federal funds, outweighs public safety concerns and concerns about navigations of the waterways.”

4. *A Supplemental DEIS is Required to Address the Information Gaps*

Having failed to address the ticket price, economic model and travel time issues highlighted above, the Agency should prepare a supplemental DEIS that carefully examines those topics. The FRA should consider the range of ticket prices that AAF may charge, evaluate the impacts of those prices on AAF’s ability to fulfill the objectives of the Project and should also carefully examine whether AAF’s other assumptions (such as station dwell times) are realistic. In doing so, the Agency should keep the following considerations in mind:

- AAF must have high enough ticket prices to bring in enough revenue to pay back its substantial expectations of either RRIF funding or PAB bonds and funds to repay its junk bond level interest rate debt to private investors, but it also must have low enough ticket prices to attract sufficient riders to fill its trains and abandon their cars. The Agency should examine whether AAF can in fact thread that needle as the data relied upon in the DEIS is totally opaque to the public.
- The Agency should not overlook the cost of getting to – and the time that it takes to get to – each AAF station, whether by foot, car, public transportation, taxi or other means. No average Orange or Palm Beach County family will choose to take an AAF train instead of driving to Miami or Orlando unless it makes economic sense. And those families cannot be expected to base their ridership decisions on ticket prices and on-the-train travel times alone. They will also be looking at total door-to-door costs and time, and so should the FRA.
- An agency cannot rubberstamp information provided by an applicant without critical review. *See, e.g., Sierra Club v. Van Antwerp*, 709 F. Supp. 2d 1254, 1267 (S.D. Fla. 2009), *aff’d* 362 F. App’x 100 (11th Cir. 2010) (chastising the U.S. Army Corps of Engineers for “uncritically” accepting certain assertions made by permit applicants). Instead, federal agencies are required to ensure that the data they rely on is accurate and reliable. *See* 40 C.F.R. § 1502.24 (federal agencies must ensure the “professional integrity” of their analyses).

D. THE DEIS PROVIDES AN INADEQUATE ANALYSIS OF THE PROJECT'S SAFETY IMPACTS

1. The DEIS Does Not Accurately Identify the Project's Impacts

The overarching flaw in the DEIS's discussion of the Project's safety impacts is that the DEIS fails to adequately – or accurately – describe those impacts. And that means that the DEIS *also* fails to provide an appropriate discussion of appropriate safety risk mitigation measures. Both flaws warrant the preparation of a supplemental DEIS. More specifically, the discussion of safety impacts in the DEIS is inadequate for at least **seven** reasons:

First, the DEIS does not compare the nature and frequency of rail-related accidents under the Project with those under the no-action alternative. Yet that is exactly the sort of analysis that the DEIS is supposed to provide. NEPA requires federal agencies to engage in “reasonable forecasting” of potential impacts. *Delaware Riverkeeper Network et al. v. FERC*, 753 F.3d 1304, 1310 (D.C. Cir. 2014). Here, the agency has provided no forecast at all of rail-related accidents, let alone a reasonable one. Instead, the DEIS states that “greater frequency of trains may increase *opportunities for conflict* between trains and vehicles or people.” DEIS at S-17 & 5-132 (emphasis added). But a single vague sentence, repeated twice, about unspecified “opportunities” for “conflict” does nothing to inform the public about the nature or extent of the safety risks actually posed by the Project. Nor does it describe those risks in a manner that would satisfy the agency's obligation to take a “hard look” at them. In reality, the Project does not threaten “opportunities for conflict,” it threatens *collisions*—with both vehicles and people—and that is the topic that the agency needs to address. The agency should prepare a reasonable forecast of what collisions are likely to occur, how frequently they are likely to occur and where they are likely to occur.

Second, the DEIS also fails to identify, or take a “hard look” at, a second major safety risk posed by the Project – delays to emergency vehicles. The Project will plainly result in additional traffic delays – and dramatically longer traffic queues – at key intersections all along the North-South Corridor. See, e.g., DEIS Appendix 3.3 C, *Transportation and Railroad Crossing Analysis for the All Aboard Florida Passenger Rail Project from Cocoa to West Palm Beach, Florida*, Pages 3-16 to 3-26 (describing anticipated traffic queues and wait times).²⁷ Yet the DEIS provides no discussion at all of how those delays may impact the ability of ambulances to reach hospitals or fire trucks to reach emergency sites. Simply put, the DEIS does not forecast those impacts. Instead, the closest the DEIS comes to an analysis of this issue is to recognize that emergency vehicles may be adversely impacted during the Project's *construction*, not during its *operation*. See DEIS at 5-132. That truncated approach is not adequate, especially given the evidence that traffic delays will not merely continue during the Project's operation, they will actually get worse over time. See DEIS Appendix 3.3. C at 3-17 (comparing 2016 conditions and 2036

²⁷ This appendix is itself flawed in various ways, as discussed at length of the comments submitted by The Board of County Commissioners of Indian River County, Florida, (the “Indian River County Comments”), which The Town of Jupiter Island respectfully incorporates by reference here. See Indian River Comments at 18-19 (identifying at least seven shortcomings in the Appendix's methodology and analysis). Nevertheless, even accepting the Appendix's traffic congestion numbers at face value, the Appendix establishes that the Project will permanently and severely disrupt traffic flows at several important intersections.

conditions). Moreover, even with respect to the adverse impacts during construction, the DEIS's discussion is profoundly flawed. The DEIS asserts on page 5-132 that "[a]s discussed in Section 5.1.2, AAF will work with local communities to minimize disruption to traffic and to maintain emergency access." But Section 5.1.2 contains no such discussion. Simply put, the DEIS lacks any meaningful discussion of what will happen to emergency vehicles.

Third, it is no answer to these concerns to say that the agency either does not possess or cannot produce reasonable forecasts of train collisions and emergency vehicle delays. The agency is required to obtain information that is "essential to a reasoned choice among alternatives," unless the cost of doing so is "exorbitant" 40 C.F.R. § 1502.22. Here, it cannot be disputed that an accurate description of, and a reasonable forecast of, adverse safety impacts is "essential to a reasoned choice among alternatives." Indeed, the DEIS touts the Project's alleged "overall beneficial effect" on public safety as a reason for undertaking the Project. See DEIS at S-17. In these circumstances, the agency must prepare a supplemental DEIS that forecasts the adverse safety impacts of the Project and provides a meaningful basis on which to compare the Project's impacts to those of the no-action alternative and other potential alternatives.

Fourth, having failed to identify the actual specific safety impacts that may result from the Project, the DEIS's conclusion that the Project will have an "overall beneficial effect" on safety, DEIS at S-17 and 5-132, is premature. Simply put, the DEIS puts the cart before the horse. The DEIS lists a vague set of "improvements" "serving to minimize potential conflicts and their consequences," DEIS at 5-132, but because the DEIS omits a clear description of the "consequences" in the first place, there is no way for the public – or FRA decision-makers – to assess whether the "improvements" are pertinent, let alone whether they will be effective. The FRA needs to identify the safety risks posed by the Project *before* it concludes that any "improvements" associated with the Project will outweigh those risks.

Fifth, the "improvements" identified in the DEIS are also too vague to support the FRA's conclusion that the Project will be beneficial, or to support an alternative conclusion that those improvements will be adequate to mitigate the adverse safety impacts of the Project. Most notably, the DEIS indicates that the FRA "will be publishing recommendations" for the Project's 349 at-grade crossings, at some unspecified point in the future. DEIS at 5-134. But there is not one word about whether those recommendations will actually be implemented by AAF, despite clear CEQ guidance requiring a discussion of that topic. See *Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations*, 46 Fed. Reg. 18026 (March 23, 1981), Question 19b ("to ensure that environmental effects of a proposed action are fairly assessed, the probability of the mitigation measures being implemented must also be discussed.") Indeed, the DEIS fails to mention evidence that AAF may actively resist the agency's safety recommendations. In March 2014, FRA Engineer Frank Fray reported that despite his support of the use of a sealed corridor, AAF officials "have openly expressed that the proposed 110 MPH segment will NOT incorporate the "Sealed Corridor" concept." See Appendix A, F. Frey, *On-Site Engineering Field Report – Part 1*, March 20, 2014 (the "March 2014 Field Report") at 2. That evidence of resistance to reasonable safety measures finds no mention in the DEIS, despite applicable CEQ guidance requiring the FRA to "acknowledge such opposition." *Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations*, Question 19b. In sum, the vague promise that safety "recommendations" will be made in the future

provides no assurance that those recommendations will be pertinent to the actual risks posed by the Project, let alone that they will be implemented, even if they are pertinent. In these circumstances, the agency should prepare a supplemental DEIS after it has published its safety recommendations for the Project. *See* 40 C.F.R. § 1502.9(a) (requiring a supplemental DEIS where the initial discussion is so truncated as to preclude “meaningful analysis”).

Sixth, the DEIS’s premature conclusion that the Project will have an “overall beneficial effect” on public safety suffers from a separate, additional flaw – it is premised, at least in part, on the assertion that the Project will result in “decreased congestion and the potential for fewer vehicular crashes.” DEIS at S-18. That assertion, to the extent it concerns congestion within the Project’s rail corridor, cannot be squared with other parts of the DEIS that conclude the Project will *increase* congestion. *See, e.g.*, DEIS at S-9 (explaining that the Project “would result in some degradation in Levels of Service” along the North-South Corridor). Alternatively, to the extent the assertion about “decreased congestion” concerns congestion along the highways between Orlando and Miami, the assertion is premised on an assumption that has inadequate factual support; namely, the assumption that the Project will divert a meaningful number of riders away from the highway. As discussed in Section [III.C.1] above, the DEIS presumes that riders will be diverted, but does not provide sufficient factual information to assess the viability of that assumption.

Seventh, no mention is made in the DEIS of increased risks from additional freight train traffic that may be induced by the Project or that it is otherwise reasonably foreseeable as a result of other economic developments.

2. *The Project Will Increase the Risk of Potentially Catastrophic Collisions That Will Cause Fatalities*

Several facts illustrate that the Project will almost surely increase the risk of train collisions – collisions with cars, collisions with people and collisions with other trains. Those facts include, at a minimum, the following:

- The Project will retain 349 at-grade crossings, even though there is no genuine doubt that at-grade crossings are dangerous and present the “opportunity” for crashes.
- The Project will not merely retain the at-grade crossings, but will more than triple (from 14 to 52) the number of trains passing through those crossings each day, while also potentially nearly quadrupling (from 28.5 miles per hour to as much as 100 miles per hour) the speed of those trains.
- Pedestrian trespassing along certain parts of the Project’s corridor is “epidemic.” Frey March 2014 Field Report at 3. Yet AAF appears not to have committed to install measures designed to curtail such trespassing.
- Even assuming that the use of double-tracks and positive train control technology will help reduce the risk of collisions between *passenger* trains

and *freight* trains, there are still times when freight and passenger trains will be sharing the same track – such as when going over one-track bridges.

Regrettably, the DEIS contains almost no discussion of these facts, let alone an attempt to explain why these facts should not lead to outright rejection of the Project. Running passenger trains at speeds in excess of 79 miles per hour in the same right of way as freight trains is reckless. In Oregon, Union Pacific Railroad, the owner of a track sought to run high speed trains, has sounded the alarm about high speed passenger trains and freight trains sharing the same right of way.²⁸ The company stated that it will never allow speeds above 79 miles per hour on its tracks; anything faster would be far too dangerous. Simply put, the facts strongly suggest that there will be more frequent and more severe rail-related accidents under the Project than under the no-action alternative and the DEIS nowhere provides evidence to the contrary.

Moreover, all of the safety risks identified above are compounded by changing climate conditions. Yet the DEIS fails to grapple with that reality. The DEIS acknowledges that changing climate conditions will adversely affect the Project's critical infrastructure: "Bridge structures will have increased vulnerability over time; potential infrastructure damage may result from flooding, tidal damage, and/or storms." DEIS at 5-75. But the FRA has not integrated that fact into its examination of the safety risks posed by the Project, or into its discussion of appropriate mitigation measures. For example, the DEIS does not examine the potential for "infrastructure damage" to result in more frequent, or more catastrophic, rail-related accidents.

To fulfil its obligations under NEPA, the FRA should prepare a supplemental DEIS that carefully examines the safety risks highlighted above. It should take a "hard look" at the risk of increased train collisions—collisions with vehicles, collisions with people and collisions with other trains—by providing a reasonable forecast of where those collisions are likely to occur, how frequently they are likely to occur and how much damage they are likely to cause. It should also incorporate the risks created by changing climate conditions into that discussion. And once it has identified the safety risks, it should include a discussion of potential mitigation measures. Only at that point will the public – and FRA decision-makers – be in a position to fully understand the potential safety impacts of the Project.

3. *The Project Will Consistently Result in Increased Delays for Emergency Vehicles, Potentially Resulting in Increased Fatalities*

No question exists that the Project, with 349 at-grade crossings, will cause delays for emergency vehicles such as ambulances and fire trucks. The FRA itself has previously acknowledged as much – although not in the DEIS. Previously, in an environmental impact statement for a *different* proposed high speed rail line, the FRA warned:

²⁸ See Ben Jacklet, *Comments on high-speed rail in Oregon roll in*, **Portland Business Journal** (Jan. 29, 2013), <http://www.bizjournals.com/portland/blog/sbo/2013/01/high-speed-rail-comments-roll-in.html?s=print>.

At-grade railroad crossings hinder emergency response times when trains block the crossings.²⁹

Remarkably, the DEIS for AAF's high speed rail proposal contains no such warning – even though AAF's Project features 349 more grade crossings than the Fresno-to-Bakersfield project, which featured zero grade crossings. The FRA's omission of such a critical warning cries out for the preparation of a supplemental DEIS.

The Town of Jupiter Island relies on two points of ingress/egress to access the barrier island. The north access point along Bridge Road relies on an at-grade crossing just outside of the Town's limits. The south access located 11 miles (½ hour at the marked speeds) south of the north access is connected by a narrow two-lane road. One access is not an equal substitute for the other in times of emergency. Additionally, all roads leading to the closest hospital serving the Town to the South (Jupiter Medical Center) are subject to at grade crossings of the FEC rail.

Any EMS service will be required to cross the FEC twice to serve the Town's residents, once coming to pick them up and once while leaving, doubling the chances for delay. Of particular note is that additional encumbrances upon Bridge Road exist, as within a ½ mile segment between the Town and the FEC crossing lies a drawbridge that operates on-demand, a large childcare facility, an elementary school, a private grade school and a college all east of the tracks. Limited parking and peak school arrival and pick-up times can cause traffic snarls under the best of circumstances. All of this confusion exists in addition to a signalized intersection and the convergence of multiple residential streets and the business district on the west side of the tracks. The intersection is alive with pedestrians and bicyclists. Drastic increases in rail activity will surely heighten safety hazards to children and adults alike.

The present state of congestion during the school year requires wait times exceeding 15 minutes without a train requiring further interruption.

Significantly, even extremely short ambulance delays can cost lives. As Dr. Michael Collins, the Medical Director for the Jupiter Medical Center's emergency department has publicly stated in relation to the Project:

Sometimes eight seconds, fifteen seconds, thirty seconds is all we have to save a life in the emergency department. I'm very concerned about multiple trains going through our community, starting traffic jams that keep ambulances from getting to us. We get twenty percent of our patients via ambulance. We get almost all of Tequesta's ambulance patients, and the thought of them waiting behind multiple crossings during the day is worrisome to me. Well, you can say that ambulances can get through traffic jams because they have horns and sirens, but I'm also concerned about physicians that are trying to get to our hospital, obstetricians, surgeons, cardiologists, neurologists. Seconds do count in the world of critical care, and I feel that All Aboard Florida needs to address these issues to the public.

²⁹ *California High-Speed Train Project Final EIR/EIS, Final Environmental Impact Report / Environmental Impact Statement and Section 4(f) Evaluation and Draft General Conformity Statement Fresno to Bakersfield Section*, at 3.11-15, available at http://www.hsr.ca.gov/Programs/Environmental_Planning/final_fresno_bakersfield.html

They need to explain what their plan is to prevent communities from being cut off from their hospitals. In critical care times, seconds count.³⁰

E. THE DEIS FAILS TO ANALYZE PRACTICABLE ALTERNATIVES THAT WOULD NOT DETRIMENTALLY IMPACT NAVIGATION, SAFETY, AND THE ENVIRONMENT

The alternatives analysis “is the heart of the environmental impact statement.” 40 C.F.R. 1502.14. An EIS is supposed to “[d]evote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their *comparative* merits.” 1502.14(b) (emphasis added). Yet the DEIS defined the purpose of the Project so narrowly that it failed to adequately compare reasonable alternatives, specifically the alternative inland CSX route. The Agency dismissed the three alternative routes, including the CSX route, because it would be too expensive and time consuming for the company. *See* DEIS at 3-10 to 3-11. As discussed in Section III.A, the proposed Project would have an unacceptable detrimental impact on maritime navigation. The CSX alternative, by nature of its inland route, would not encounter and create these dangerous navigation conditions. The CSX alternative would not run through such densely populated communities, and therefore, it would not raise such striking safety concerns to communities.

Additionally, the proposed Project represents a significant encroachment on floodplains, yet the FRA fails to explore alternatives that are not located in floodplains. This failure is detailed in Section 5 of Indian River County’s Comments. *See* Indian River’s Comments at 13-14. The Agency fails to illustrate why the Project must be located in floodplains, and it also fails to demonstrate why non-flood plain construction alternatives are not practicable. *Cf. Sierra Club v. Van Antwerp*, 709 F. Supp. 2d 1254 (S.D. Fla. 2009), *aff’d* 362 F. App’x 100 (11th Cir. 2010) (holding that the Army Corps of Engineers acted arbitrarily and capriciously in determining that a proposed mining project was water dependent and that there were no practicable alternatives to mining in the wetlands).

Finally, the DEIS fails to evaluate each route’s vulnerability to the effects of climate change. The proposed Project would run through areas that are most susceptible to rising sea levels and storm surges. Although the proposed route will encounter these effects and would result in significant repair and mitigation costs – most likely to the taxpayer – the DEIS does not address this reasonably foreseeable impact in its alternatives analysis. As with navigation and safety concerns, the alternative CSX route runs inland and would not be anywhere near as vulnerable to the effects of climate change as the proposed route.

Thus, in order to fulfill “the heart of the environmental impact statement,” the Agency must issue a supplemental DEIS that includes a meaningful alternatives analysis addressing these important concerns.

³⁰ A video of Dr. Collins’ comments can be found here: <http://www.saveourfl.com/news-conference-jupiter-medical-center/>.

F. THE DEIS FAILS TO ADEQUATELY ASSESS CONSTRUCTION IMPACTS

The proposed Project would be a massive undertaking that would require construction over multiple years; this would result in significant impacts on surrounding areas, including increased traffic congestion and air pollution from diesel construction equipment. Yet the DEIS merely glosses over these impacts with no substantive analyses. *See* DEIS at 5-5, 5-14, and 7-4. Indian River County does an excellent job describing this concern in its Comments. *See* Indian River's comments at 15-16. We believe these concerns are legitimate and need to be addressed by the Agency.

G. THE DEIS FAILS TO ADEQUATELY ANALYZE THE PROJECT'S INCREASED NOISE AND VIBRATION AND THE IMPACTS ON LOCAL COMMUNITIES

The DEIS greatly underestimates increases in noise levels and vibration caused by the Project. *See* Indian River's Comments at 17-21. The Agency fails to follow its own Noise Manual and uses faulty methodology to conclude that "the Project would have no permanent noise impacts." *Id.* at 21 (quoting DEIS at 5-49). We believe these concerns are legitimate and need to be addressed by the Agency.

H. THE DEIS IMPROPERLY EXCLUDED LOCAL AUTHORITIES FROM NATIONAL HISTORIC PRESERVATION ACT CONSULTATION

Despite NHPA regulations requiring the Agency to invite local governments to participate in a consultation to identify historic and archaeological resources that could be affected by the Project, the FRA selectively chose "certified" localities that were more likely to support the Project. *See* Indian River's Comments at 21-24. As Indian River County explains, the flawed consultation and the DEIS failed to identify multiple archaeological and historic resources. We believe this concern is legitimate and needs to be addressed by the Agency.

I. THE DEIS FAILS TO CONSIDER THE PROJECT'S IMPACTS ON COMMUNITY REDEVELOPMENT AREAS

The DEIS fails to identify five Community Redevelopment Areas ("CRAs") in Martin County that the Project would bisect. As Martin County explains in its Comments, the Project would have a disproportionate detrimental impact on low-income areas in the County. The DEIS does not address populations that travel primarily by walking and bicycling. Nor does it address the detrimental impact it would have on small businesses in these CRAs. *See* Martin County's Comments at 25-31, ex. N. These are serious concerns that need to be addressed by the Agency.

J. THE DEIS BASES ITS ENDANGERED SPECIES ANALYSIS ON INCOMPLETE OR INADEQUATE WILDLIFE DATA

Martin County raises important concerns related to the DEIS's flawed endangered species analysis. *See* Martin County's Comments at 21-24. The DEIS fails to (1) identify preserved rare and unique upland areas (scrub), (2) provide potential impacts on state and federal listed animal and plant species, and (3) provide mitigation measures for these listed animal and plant species. We urge the Agency to examine these significant concerns.

IV. IF THE PROJECT GOES FORWARD, THE FRA MUST ENSURE THAT APPROPRIATE AND MEANINGFUL MITIGATION MEASURES ARE TAKEN

The Town of Jupiter Island is opposed to the Project as currently conceived and urges the FRA to reject the Project. At a minimum, the FRA should prepare a supplemental DEIS that adequately addresses all of the concerns identified above, as well as those raised by other parties submitting comments on the DEIS. But if the FRA moves forward with preparation of a Final EIS, it must ensure that appropriate mitigation measures are implemented, and it must develop an appropriate plan for monitoring the effectiveness of those measures.

It is impossible for the Town to identify – and comment on – all appropriate mitigation measures until the FRA (i) provides a comprehensive and accurate account of the Project’s actual safety impacts, and (ii) publishes its safety recommendations for the Project. Nevertheless, even in the absence of such information, it is clear that the Agency should implement the following three mitigation measures:

First, the Project should not go forward unless the St. Lucie, Loxahatchee, and New River bridges are replaced in their entirety with modern, safe bridges that do not adversely impact navigation and do not create adverse noise, vibration or visual impacts on the surrounding communities.

Second, the Project should not go forward without implementation of a full suite of rail-related safety measures – not merely the vague plans discussed in the DEIS (such as the preparation of a comprehensive safety plan), but also such the creation of a sealed corridor at all at-grade crossings and the installation of pedestrian gates at where sidewalks are present on either side of the rail line, at the expense of the project, not the adjoining counties, cities and towns.

Third, the FRA should develop a comprehensive mitigation monitoring plan, to ensure that any mitigation measures discussed in the final EIS and committed to by the Agency and AAF are in fact implemented.

Indian River and Martin Counties have also identified other specific mitigation measures that should be taken. Finally, the FRA should also compare – in a supplemental DEIS – the pros and cons of imposing speed limits at each grade crossing. It should include in its discussion an examination of whether such limits would reduce the risk of potential accidents, and if so, would those benefits be offset by increased traffic delays.

V. CONCLUSION

The Project is poorly conceived and threatens unacceptable adverse impacts to the safety and welfare of Florida's citizens. Particularly, as a direct impact to the residents of the Town of Jupiter Island, the safety and security of our citizens are threatened by delays to EMS, Medical Transport, Fire and Public Safety Officers. For those reasons, the FRA should reject the Project. At a bare minimum, the FRA should refrain from proceeding with the Project until it prepares a

supplemental DEIS adequately addressing the concerns raised in these comments and in the comments submitted by other concerned citizens and entities.

VI. APPENDIX

- A. Frank A. Frey, **U.S. Department of Transportation Federal Railroad Administration**, *On-Site Field Engineering Field Report – Part 1 – All Aboard Florida* (Mar. 20, 2014)
- B. Frank Cerabino, *All Aboard Florida's ridership estimates a field of dreams*, **Palm Beach Post** (Nov. 17, 2014), http://www.mypalmbeachpost.com/news/news/state-regional/cerabino-all-aboard-floridas-ridership-estimates-a/nh82M/?icmp=pbp_internallink_textlink_apr2013_pbpstubtomypbp_launch

APPENDIX

- A. Frank A. Frey, **U.S. Department of Transportation Federal Railroad Administration**, *On-Site Field Engineering Field Report – Part 1 – All Aboard Florida* (Mar. 20, 2014)



U.S. Department of Transportation
Federal Railroad Administration

Office of Safety RRS-23
Highway Rail Crossing and Trespasser Program Division

ON-SITE ENGINEERING FIELD REPORT - Part 1

— All Aboard Florida —

Background:

FRA Headquarters, in conjunction with the Region 3 office, assisted in the diagnostic safety review of the Florida East Coast (FEC) Railway grade crossings between Miami-Dade to St. Lucie counties. This is due to High Speed Passenger Rail service being planned between Miami and Orlando, known as "All Aboard Florida". Beginning February 4, 2014 and ending on March 7, 2014, a total of 263 public and private grade crossings were assessed. Participants included officials from Florida Department of Transportation (FDOT), FEC, All Aboard Florida (AAF); including local city and county officials at some locations.

For the purposes of this report, Part 1 represents the diagnostic review taken place from Miami-Dade to St. Lucie Counties. Part 2 designates the diagnostic review from Indian River County to Cocoa Beach, which is expected to occur in mid-to-late June 2014. There are approximately 90 grade crossings in Part 2. The segment between Cocoa Beach and Orlando will be designed for 125 MPH, however, AAF will not be traversing over any at-grade crossings along that rail corridor.

Scope:

Crossing locations between Miami to north of West Palm Beach are being designed for a maximum authorized speed of 79 MPH. The 110 MPH segment begins/ends at 30th Street in West Palm Beach (milepost 297.40), and continues through the Private Road Crossing in Indrio (milepost 233.90). Within the 110 MPH segment, train speeds are lowered to conventional rail limits where civil constraints exist; such as curves or draw bridges, which are noted on the accompanying field design plans.

Currently the design plans are at 30%. The next reiteration will be at 90%. Therefore, the decisions for the grade crossing signaling equipment and warning devices will be determined fairly soon.

The existing crossing signaling equipment contain a mix of signal cases and relay houses, equipped with either Phase Motion Detectors (PMD-1) or HXP 3R2's highway crossing processors.

Each crossing location will eventually consist of relay houses equipped with GE Transportation's ElectroLogIXS XP4 for constant warning time as part of this project. For 110 MPH, the crossing circuits beyond the 79 MPH standard will utilize a GE device linked through the PTC system for the advanced crossing starts. The technology will diagnose a health check to determine whether or not all roadway/pedestrian gates are in the down position.

Results:

Of the 263 grade crossings in Part 1, there are 57 crossing locations affected for Sealed Corridor treatments within the 110 MPH territory. Officials from All Aboard Florida passenger rail project (herein the "Project") have openly expressed that the proposed 110 MPH segment will NOT incorporate the "Sealed Corridor" concept as outlined in FRA's Highway-Rail Grade Crossing Guidelines for High-Speed Passenger Rail, Version 1.0 (*November 2009*). They stated that since these are "guidelines, not regulations" as quoted on page *iii*, in which they are not obligated to incorporate any of the described crossing treatments as illustrated in the document. The Project estimates that in doing so would incur an additional financial burden of about \$47 mil.

In my professional opinion, I respectfully disagree with the Project's approach in that they are not exercising appropriate safety practices and reasonable care when designing for High Speed Passenger Rail service. I explained to the entire diagnostic team how important it was to adopt the principles of the Sealed Corridor approach. However, it was clearly evident that the Project was not pursuing such concept.

As a result, the Project has directed their signaling engineering consultants to design crossings to ONLY accommodate for the additional track while complying with the MUTCD - but not to incorporate any of the Sealed Corridor treatments. Furthermore, since there is a completely different philosophical view towards safety between the Project and I, the accompanying marked-up design plans and field notes are notably different from the Project's design plans; particularly along the 110 MPH segment. The Project has been maintaining a running log noting my Sealed Corridor recommendations.

Officials from FDOT's Rail Office are not taking a position, one way or the other, at this time.

Safety Recommendations:

The following are recommendations made to the Project based upon my on-site field assessments during the diagnostic safety review:

- A. Pedestrian gates** – there are certain locations along the corridor in which sidewalks are present on both sides of the railroad right-of-way, but do not follow through. Some of these sidewalks do not comply with today's ADA's standards, however pedestrian travel is evident due to the worn foot path on the surface, and general witnessing of usage. Typically the roadway gate covers the entrance side of the adjacent sidewalk, but there are no pedestrian gates on the opposite quadrants. The Project stated if there is no agreement with the city or county for the service and maintenance of a pedestrian gate assembly, they will not install them.

Trespassing is an epidemic along this corridor. Rather than encourage it, it is recommended per my field notes at those particular locations to equip sidewalk approaches with a visual and gated barrier. This is to provide safe passage of pedestrians through a very active rail line and prevents those from walking into an open railway corridor; or directing them onto the street – irrespective if there is an agreement or not.

- B. Vehicle Presence Detection** – for those public and private crossings between 80-110 MPH in Part 1 to be equipped with a Vehicle Presence Detection ("VPD") system. The entire FEC corridor is equipped with Cab Signaling control. Presence detection will serve as a long term obstacle system, where the presence of a vehicle within the crossing area for a fixed length of time would be reported as an alarm through the remote monitoring system, irrespective of the approach of a train. Subsequently, for those 3-Quadrant and 4-Quadrant gated grade crossings between 80-110 MPH (as identified further below), it is recommended that either through the activation of a loop detector and/or a vertical exit gate (indicating a roadway vehicle is occupying the crossing) that a vehicle is detected by the train as a "feedback loop" of information; resulting in a loss of cab-signals, thus placing the train in an automatic speed restriction.

Motor vehicles stalled, or trapped on a crossing due to queuing, present a derailment hazard; and in multiple track territory or where freight equipment is standing on adjacent sidings or industry tracks, derailments can result in catastrophic secondary collisions. Therefore, presence detection providing feedback to the train control system to high speed

trains traveling along this FEC corridor be active in order to minimize the possibility of derailments as well.

Recommending a VPD system is due to the following safety reasons:

1. Field observations with vehicular traffic stopping on tracks
2. Safety concerns expressed by city, county and FDOT officials
3. Several crossings with reduced or no vehicle clearance at roadway T-intersections
4. Vehicles yielding to oncoming traffic while on tracks at non-signalized T-intersections
5. Motorists / Commercial Vehicles queuing over tracks due to 4-way stop intersection, and vehicles entering adjacent driveways and parking lots
6. The multiple track surfaces enables motorists to make U-turns or cut thru's easier
7. Severely skewed crossings
8. Acute-angled crossings with main gates perpendicular to the vehicular roadway

C. Sealed Corridor Treatments - the following grade crossing locations are the recommended Sealed Corridor Treatments required by the Project to install:

Four-Quadrant Gates (also referred as exit gates) (41)			
Street Name	City/Town	Milepost	DOT #
30 th Street	West Palm Beach	297.40	272 406 J
Inlet Blvd.	Rivera Beach	295.45	272 400 T
Flagler Street	Rivera Beach	295.15	272 399 B
Silver Beach Road	Lake Park	293.75	272 389 V
Park Ave	Lake Park	293.30	272 387 G
Richard Road	Palm Beach Gardens	292.20	272 385 T
Lighthouse Drive	Palm Beach Gardens	291.70	272 384 L
RCA Blvd.	Palm Beach Gardens	290.30	272 382 X
Fred Small Road	Jupiter	286.20	273 020 P
Toney Penna Dr. *	Jupiter	284.20	272 378 H
Gleason Street	Hobe Sound	274.50	272 367 V
Bridge Road	Hobe Sound	274.10	272 366 N
Pettway Street	Hobe Sound	272.70	272 365 G
Crossrip Street	Salerno	271.40	272 362 L
Osprey Street	Salerno	270.90	272 934 K
Cove Road	Salerno	267.14	272 359 D
Broward Street	Salerno	266.80	272 358 W
Salerno Road	Salerno	266.60	272 357 P
Seaward Street **	Salerno	266.50	272 356 H

Monterey Road	Stuart	263.30	272 353 M
SR A1A	Stuart	262.50	272 350 S
Florida Street	Stuart	262.30	272 349 X
Palmetto Drive	Rio	257.40	272 342 A
Jenson Beach Blvd.	Rio	256.80	272 340 L
Pitchford Land***	Rio	256.20	272 338 K
Skyline Drive	Rio	255.50	272 337 D
County Line Road	Rio	255.30	272 336 W
Walton Road	Walton	252.50	272 332 U
Midway Road	Walton	246.30	272 331 M
Savannah Road	Fort Pierce	243.80	272 330 F
No. Bch. Causeway	Indrio	239.80	272 218 U
Shimoner Ln. ***	Indrio	239.50	272 217 M
Tarmac Road***	Indrio	239.20	272 215 Y
St. Lucie Lane	Indrio	238.80	272 214 S
Chamberlain Blvd.	Indrio	238.40	272 213 K
Milton Road	Indrio	237.80	272 211 W
Torpey Road	Indrio	237.10	272 210 P
Rouse Road	Indrio	236.70	272 209 V
Michigan Street	Indrio	236.10	272 208 N
Wilcox Road	Indrio	235.60	272 207 G
Harbor Branch Rd	Indrio	235.10	272 206 A

* - Last crossing location (northbound) for proposed Tri-Rail service

** - Recommend to be CLOSED

*** - Private Crossing

100-foot Non-traversable Medians * (7)

Street Name	City/Town	Milepost	DOT #
36 th Street	West Palm Beach	297.10	272 405 C
45 th Street	West Palm Beach	296.65	272 403 N
49 th Street	West Palm Beach	296.30	272 240 G
County Line Road	Hobe Sound	280.90	272 372 S
Park Road	Hobe Sound	277.70	272 370 D
SR A1A **	Salerno	268.65	272 360 X
Avenue A	Fort Pierce	241.30	272 238 F

* **Please note:** if for any reason the Project and the respective municipality cannot agree on the median treatment, then those location(s) be equipped with exit gates.

** **Medians to be at least 150-feet each approach due to severe roadway skew.**

Three-Quadrant Gates (due to a median present on the opposite side) (6)

Street Name	City/Town	Milepost	DOT #
Blue Heron Blvd.	Rivera Beach	294.90	272 390 P
Burns Road	Palm Beach Gardens	290.80	272 383 E
Hood Road	Palm Beach Gardens	288.50	272 380 J
Donald Ross Road	Palm Beach Gardens	287.20	272 379 P
Indiantown Road	Jupiter	283.60	272 377 B
Orange Avenue	Fort Pierce	241.50	272 239 M

Private (6 locations within 110 MPH)

Street Name	City/Town	Milepost	DOT #
Miracle Way *	Rio	257.10	272 341 T
Pitchford Lnd **	Rio	256.20	272 338 K
Shimoner Ln **	Indrio	239.50	272 217 M
Tarmac Road **	Indrio	239.20	272 215 Y
Private Road *	Indrio	234.50	272 205 T
Private Road *	Indrio	233.90	272 204 L

* - Recommend locked gate with procedures seeking permission from R.R. dispatch to cross.

** - Recommend the Project to equip with Four-Quadrant Gates (including VPD)

Closed (17) Please note: Officials from the city or county are not taking a position, one way or the other, at this time.

Street Name	City/Town	Milepost	DOT #
179 th Street	Aventura	353.60	272 602 R
141 st Street *	North Miami Beach	356.12	272 609 N
Third Street	Hallandale	350.30	272 591 F
Monroe Street	Hollywood	349.03	272 588 X
Fillmore Street	Hollywood	348.52	272 585 C
Garfield Street	Hollywood	348.07	272 582 G
Dania Blvd *	Dania Beach	345.94	272 574 P
First Street *	Dania Beach	345.81	272 573 H
22 nd Street	Fort Lauderdale	342.96	272 566 X
9 th Street	Fort Lauderdale	341.80	272 661 N
6 th Street *	Fort Lauderdale	341.56	272 559 M
5 th Street *	Fort Lauderdale	341.45	272 558 F
2 nd Street	Pompano Beach	333.31	272 534 S
4 th Street	Deerfield Beach	327.41	272 513 Y
2 nd Street	Deerfield Beach	326.81	272 511 K
Hunter Street	West Palm Beach	303.18	272 450 W
Seaward Street **	Salerno	266.50	272 356 H

* - or possible one-way

** - only crossing to be closed along 110 MPH segment

Conclusion:


Based upon my professional background and experience in regards to grade crossing safety, I strongly recommend officials from All Aboard Florida to adhere to the principles as outlined in the FRA's guidelines for Emerging High-Speed Rail (80-110 MPH). In doing so incorporates the optimum safety practices in the engineering and design of their crossing locations for the following reasons:

- I. The operating dynamics are significantly changing within the existing environment of the grade crossings, along with an already an active freight operation that will include:
 - The addition of 16 round-trip trains (32 total) at 110 MPH
 - The eventual inclusion of Tri-rail Commuter Rail service, which will add 74 trains.
 - Changing from single track to multiple track configurations.
- II. Densely settled neighborhoods with congested roadways
- III. As many as 5 traffic lanes in the oncoming direction at T-intersections

In summary, as the travelling public begins to assimilate to a substantial increase in railroad operations - by incorporating enhanced railroad signaling technology and increased active highway warning devices are paramount to ensuring safety awareness as both entities interact with one another. Therefore, equipping crossing locations with the recommended actions, as outlined above in this report, will dramatically reduce potential safety hazards and catastrophic events.

Report Respectfully Submitted By:

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March 20, 2014

APPENDIX

- B. Frank Cerabino, *All Aboard Florida's ridership estimates a field of dreams*, **Palm Beach Post** (Nov. 17, 2014), http://www.mypalmbeachpost.com/news/news/state-regional/cerabino-all-aboard-floridas-ridership-estimates-a/nh82M/?icmp=pbp_internallink_textlink_apr2013_pbpstbtomypbp_launch

Cerabino: All Aboard Florida's ridership estimates a field of dreams
The Palm Beach Post

By Frank Cerabino

Now that the groundbreaking of the All Aboard Florida station in West Palm Beach has begun we can all look forward to the near future when 3.4-5.1 million train passengers a year will be stopping or passing through the yet-to-be-built downtown station.

At least that's the projected figures from a ridership survey proffered by the rail company.

Where exactly are all these future riders? Who knows?

They weren't at the groundbreaking on the new station. It was closed to the public. Maybe they were riding Tri-Rail that day. Last year, Tri-Rail, a government subsidized rail service between Miami and West Palm Beach, had 4.4 million riders.

You think these rail commuters are going to jump to All Aboard Florida for a quicker trip with fewer stops and more comfort?

Maybe some will.

But considering that you can get from Miami to West Palm Beach on Tri-Rail for \$6.90, and that the Miami-to-West Palm Beach ticket on All Aboard Florida has been projected to be as low as \$23.77, I'm guessing all those job commuters and students I see on Tri-Rail aren't waiting for the day that they can more-than-triple their commuting costs.

Public transportation in South Florida is essentially what people do when they don't have a better option.

So maybe it's the tourists who will bring this gleaming new All Aboard Florida station in West Palm Beach to life.

Let's look at the math.

The ridership survey's conservative estimate is that 1.94 million people a year will ride All Aboard Florida just between its Miami, Fort Lauderdale and West Palm Beach stations. And then another 1.53 million will be taking the train each year between the South Florida stations and Orlando, the line's other stop.

When you add all those short and long-haul trips, you get the 3.47 million that is the line's conservative estimate of expected riders for the year.

There are 16 trains going each way every day, and a capacity of 400 seats on each train. So you can break down these yearly estimates in numbers that are easier to envision.

It breaks down to 9,509 riders a day. And if you divide them equally over the 16 trips going north and 16 trips going south each day, you end up with each train car filled with 297 riders — making each train three-quarters filled.

Do you believe that?

Do you think that the 9 p.m. southbound train pulling into West Palm Beach on a Monday in late August is going to have nearly 300 people aboard?

I don't either.

Well, that's just an average. So maybe the summer trains will be nearly empty. OK, if so, that would mean that 600 or 700 people would have to be riding those 400-seat trains during the tourist season.

And according to the projections, most of those riders will be just going between Miami and West Palm Beach.

For what, exactly? What will make tourists line up to spend about \$50 per person for a round-trip ticket between Miami and West Palm Beach?

Maybe some things will. But to make these ridership numbers work, you'd need 1.94 million tourists lining up for the higher-priced version of South Florida rail travel every year. And if you divide that by 365 days in a year, and then divide again by the 32 daily trains, you get 166 tourists on each train between Miami, Fort Lauderdale and West Palm Beach. All year long. For every train.

That's putting a lot of pressure on the quilt shows at the Palm Beach County Convention Center.

And these estimates are the conservative ones. If you look at All Aboard Florida's rosiest projection of 5.1 million annual riders in 2019, that would put an average of 437 people on each of the 400-seat trains all year long.

So I look at this month's groundbreaking for the All Aboard Florida station in West Palm Beach as more of an act of faith than an act of construction.

Like that heart-warming tale of the baseball diamond carved out in an Iowa cornfield, we've entered the realm of magical realism, a build-it-and-they-will-come era.

We're building a track of dreams, a dream that's a lot easier to believe if you avoid looking at the numbers.

See the original article here: [The Palm Beach Post](#)



CITY OF PALM BEACH GARDENS

10500 N. MILITARY TRAIL • PALM BEACH GARDENS • FLORIDA 33410-4698

November 20, 2014

Mr. Michael Lefevre, Operations Planner
All Aboard Florida
2855 Le Jeune Road, 4th Floor
Coral Gables, FL 33134

Dear Mr. Lefevre:

Subject: All Aboard Florida

As Florida East Coast Industries' All Aboard Florida project moves forward, questions remain on how the project will be implemented and the specific impacts it will have on the City of Palm Beach Gardens. Although All Aboard Florida has conducted an intense public outreach campaign on the project as a whole, questions remain on the exact details exclusive to the City.

The City Council and I, along with City Staff, are requesting from All Aboard Florida written responses to the following questions and concerns:

- Will plans include pedestrian crossings (especially for the crossings at Lighthouse Drive/A1A and Burns Road/A1A due to children crossing for school)?
- Will crossings be compliant with ADA Standards?
- Will any crossings have overhead / over-the- road crossings?
- What will be done to mitigate the possible delays in response times for First Responders?
- What are the differences between a 'Sealed Corridor' and a 'Quiet Zone' in liability, cost, maintenance, and noise expectations?
- Please confirm the speed that the trains will be traveling through the City of Palm Beach Gardens.
- Which entity (All Aboard Florida, Florida East Coast Industries, and/or the City of Palm Beach Gardens) is financially responsible for the improvements necessary to create the 'Sealed Corridor'?
- Which entity (All Aboard Florida, Florida East Coast Industries, and/or the City of Palm Beach Gardens) will be financially responsible for the future maintenance of the grade crossings?
- How will the new track(s) affect the ditch area on the west side of the track (beginning at C-18 canal to just north of RCA Boulevard)?
- Will the new tracks eliminate all of the vegetation on the west side of the track that is currently helping to mitigate noise issues for nearby residents and businesses (beginning at C-18 canal to Donald Ross Road)?

Mr. Michael Lefevre
November 20, 2014
Page 2 of 2

- Will the project plans include proposed traffic and pavement markings?
- Will the signal devices and gates installed be of a standard design approved by the City Engineer?
- When will the City of Palm Beach Gardens receive the 90% and the 100% / final drawings?
- What is the current status of the funding of the project?
- Does All Aboard Florida still intend to seek publicly guaranteed loans? If so, how much?
- Does the revised method of payment remove the need for the Environmental Impact Statement (EIS)?
- In regards to the crossing agreement, what is considered to be "necessary and reasonable capital investments" to which All Aboard Florida is committing?
- Are there future plans to connect the All Aboard Florida project with Tri-Rail services in the City of Palm Beach Gardens?
- What is the anticipated amount of freight train volume projected daily and hourly?

As the Operations Planner for All Aboard Florida, it is the City's hope that you, or the appropriate party, will address these questions and concerns in writing so that all parties have a mutual understanding of key issues that impact the City's residents and businesses.

The City thanks you in advance for your responses.

Sincerely,



Robert G. Premuroso
Mayor

cc: City Council
Mr. Ronald M. Ferris, City Manager
Mr. John Winkle, Federal Railroad Administration (FRA)
Mr. Michael Busha, Treasure Coast Regional Planning Council
Mr. Nick Uhren, Palm Beach MPO

**Martin County Comments on the
Draft Environmental Impact Statement for the
All Aboard Florida Passenger Rail Project**

November 18, 2014

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A.	Martin County Pedestrian Crossings
B.	Annual Average Daily Traffic (AADT) at FEC Crossings
C.	Vessel Traffic Data, Taylor Engineering, Inc.
D.	Letter from McCulley Marine Services, Inc. dated March 12, 2014
E.	Martin County Conservation Lands Map
F.	East Coast Greenway Corridor Alignment
G.	Johnathan Dickenson State Park Land Use Plan
H.	Martin County Barded Scrub Jays Map
I.	Scrub Habitat and Scrub Jay Points Map
J.	East Coast Greenway Seabranh State Park – Gopher Tortoise Burrow Locations
K1.	Florida Scrub Jay Survey, CR-A1A / Dixie Highway Bike Lanes

- K2. Florida Scrub Jay Survey, Jonathan Dickenson State Park
- L. Florida Land Use and Cover Classification System (FLUCCS) Map
- M. Environmental Justice and Title I Schools Map
- N. Martin County Community Redevelopment Area Report
- O. Letter from Realtor Association of Martin County dated November 13, 2014
- P. Letter from Florida Department of Environmental Protection dated Nov. 24, 2014
- Q. Endangered Florida Perforate Cladonia (Reindeer Lichen)
- R. Endangered Mycteria Americana (Wood Stork)
- S. Jonathan Dickenson State Park Management Plan , Pages 46 - 55

Martin County Comments on the Draft Environmental Impact Statement for the All Aboard Florida Passenger Rail Project

Summary of Additional Information Needed to Complete Evaluation and Comments

1. Provide detailed information of the operation schedule and freight train staging areas so that impacts to traffic, air quality, businesses, public safety and emergency response can be evaluated.
2. Provide 90% construction plans in order to complete the evaluation of impacts. The 30% plans only show the crossings; there is no information provided between the crossings and the consultant has indicated that major changes are being made to 30% plans.
3. Provide detailed information on sealed corridor improvements, i.e. fencing and landscaping.
4. Provide mapping of trauma center locations and analysis of response and transport times.
5. Additional information is needed for crossings to determine if the new profile grade line of the rail crossings will impact the connecting roadways and require regrading or plateauing the intersections.
6. Provide further analysis of air quality degradation that will occur by the nearly 285% increase in delays at the 28 rail crossings.
7. Provide further analysis of the intersection Level of Service at the SR-714 (SE Monterey Road) crossing. The DEIS does not look at the impacts to the intersection of SE Monterey Road and US-1 / SE Federal Highway. The DEIS also did not use the correct traffic volumes on SE Monterey Road.
8. Commit to staging locations that do not block grade crossings if second track is not provided across the St. Lucie River.
9. Provide Hurricane Evacuation Plan for St. Lucie River Bridge operation. Many vessels depend on the protected water west of the railroad bridge for safe harbor during hurricanes. The bridge is locked in the down position when wind speeds reach 35 mph.
10. Provide data on the number of allisions (navigation term – boat impacting a fixed object) that occur each year on the St. Lucie River Rail Bridge and Fender system.
11. Request an assessment from Florida Fish and Wildlife Commission (FWC) on navigation hazards presented by the current structure and operation of the railroad bridge, as well as impact from increased closings in response to increased freight trains through the area.
12. Identify preserved rare and unique upland areas (scrub).
13. Provide discrete or site-specific information, surveys, evaluations and potential impacts to state listed animal and plant species.
14. Provide impact avoidance/mitigation measures for any listed animal and plant species known to occur in the project area.
15. Provide information on historic and cultural resources and include impact avoidance/mitigation measures.

16. Identify and analyze impacts to small business owners in Martin County, particularly within the CRA's.
17. Identify and provide mitigation measures for impacts to labor force mobility, particularly on residents who walk or bike to work.
18. Identify and provide mitigation measures for impacts to disabled population in Martin County.
19. Identify and provide mitigation measures for impacts to the limited English speaking population in the Golden Gate CRA.
20. Identify and provide mitigation measures for the impacts of increased noise and vibration on elderly residents in Martin County.
21. Identify and provide mitigation measures for impacts to minority populations in Martin County.
22. Identify and provide mitigation measures for impacts to poverty populations in Martin County.
23. Identify and analyze economic impact on businesses and residents on the Okeechobee Waterway from Stuart to Ft. Myers.
24. Provide St. Lucie River Bridge inspection reports and assurance that the bridge is safe for potential ridership of the proposed All Aboard Florida project and the citizens of Martin County. On November 12, 2014, the Martin County Attorney's Office made a request to FRA under the Freedom of Information Act for copies of all inspection reports or other data concerning the St. Lucie River railroad bridge. The request included both inspections done by or on behalf of Florida East Coast Railroad or any of its subsidiaries or by any other entity. To date there has been no response to this request. A formal request for the inspection reports was also submitted to Florida East Coast Railroad through their legal counsel.
25. Prepare a Supplemental DEIS that meets the National Environmental Policy Act (NEPS) and the Federal Coastal Zone Management Act (CZMA). The Supplemental DEIS should be prepared by a consultant who is competitively and independently selected and be based on data that is independently verified.
26. Analyze the effects of climate change on the proposed project. When the St. Lucie River Rail Bridge is closed, it comes within 7' of the surface of the water. USDOT "Policy Statement on Climate Change Adaption" requires USDOT to use "best-available science" and apply "risk management methods and tools" in assessing and planning for climate change.
27. Provide an Alternatives Analysis for the North-South corridor that meets the requirements of the Code of Federal Regulations, (40 CFR, Section 1502.14). All reasonable alternatives need to be explored and objectively evaluated. The DEIS short circuited the alternatives analysis by narrowly defining the "purpose and need" as an intercity rail service that is "sustainable as a private enterprise". The economics of the proposed project then screened out all other available routes.

Summary of Recommendations for Public Benefit or Mitigation Measures to Offset Impacts

1. Replace Railroad Bridge over St. Lucie River with span that has a minimum 80-foot horizontal clearance between fenders, double tracks and quicker cycle time.
2. Provide Bicycle/Pedestrian facilities at all crossings.
3. Provide at least one northbound and one southbound stop daily at a location within Martin County. Annually evaluate feasibility of adding additional daily stops.
4. Provide Supplemental Comment Period to review the 90% construction plans after they are released.
5. Provide formal pedestrian crossings where there is historic and heavy foot traffic across the rail between crossings.
6. Provide full, four quadrant gates and vehicle presence detection systems at all crossings so that locomotive engineers will have enough advanced warning to stop train before they reach the crossing.
7. Provide Vessel Detection System at St. Lucie River Railroad Bridge.
8. Provide advanced preemption at all signalized intersections.
9. Renegotiate all grade crossing Agreements. The 30% plans indicate that AAF will need easements for equipment located outside the FEC right-of-way.
10. Provide rail corridor fencing, strategically placed wildlife crossing culverts/tunnels, and specific monitoring studies.
11. Monitor the project corridor to provide assurances to the public that the mitigation actions implemented will adequately offset the actual project impacts that occur. Monitoring should include impacts to listed plant and animal species; historic and cultural resources; disabled populations; small business owners; limited English speaking populations; elderly populations; minority populations and poverty populations.
12. Provide grade separated crossing at key locations for emergency access and transport.
13. Provide a bridge tender at the St. Lucie River Bridge to coordinate openings with the Dixie Highway (Old Roosevelt Bridge) and provide predictable hourly openings with a minimum safe vessel transit time of 15 minutes every hour. The 15 minute safe vessel transit time shall not include the time it takes for the railroad bridge to be locked open or to be locked down.

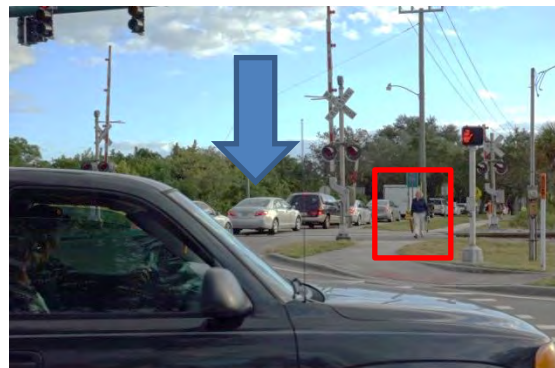
**Martin County Technical Review of the
Draft Environmental Impact Statement for the
All Aboard Florida Passenger Rail Project**

General Comments on Document and Process

1. South Florida should not be included in the Draft Environmental Impact Statement (DEIS). Phase I from West Palm Beach to Miami has already received a Finding of No Significant Impact (FONSI). The benefits to South Florida should not be utilized to mitigate the negative impacts to the Treasure Coast.
2. The DEIS is based on data that was provided by All Aboard Florida (AAF). Martin County was never contacted about providing accurate data that the County has available.
3. Conflicting data is presented in the Summary, the DEIS and the Appendix that does not match substantiated data collected by County.
4. Some of the documents in the Appendix do not identify the source.
5. Use of an average speed in the DEIS of 76.96 miles per hour through Martin County is misleading. The speed through Hobe Sound, Salerno, Golden Gate and Jensen is 110 mph. The average speed was calculated by factoring in the lower speeds north of downtown Stuart where the trains will slow down as they approach the curve.
6. The County cannot fully evaluate the impacts when only 30% construction plans of the grade crossings have been issued. Furthermore, no information has been provided on what happens between crossings. 90% plans are not scheduled to be released until mid-December, which is after the December 3rd deadline for comments on the DEIS.
7. At the Public Meeting on October 30, 2014, the consultant who is preparing the 90% plans indicated that there are significant changes being made to the plans including where the corridor will have triple tracks. Martin County and the public should be given an opportunity to review and comment on the 90% plans prior to the Federal Rail Administration's (FRA's) release of the Final Environmental Impact Statement (FEIS).

Transportation

1. If a second track is not provided over the St. Lucie River, commit that the staging of freight trains for passage of the passenger trains will occur where there are no highway crossings. For northbound freight, there is nearly 11,000 feet between the crossings at SE Seaward Street and SE Indian Street. For southbound freight traffic, there is nearly 10,500 feet between NE Palmetto Avenue and CR-707 (NE Dixie Highway).
2. Provide pedestrian crossings and gates at all existing highway crossings. There are 28 crossings in Martin County, only 10 have pedestrian facilities in place (see Exhibit A _ Pedestrian Crossings).
3. The Florida Department of Transportation (FDOT) is proposing construction of approximately 4.5 miles of a 12-foot wide multi-use path trail within Jonathan Dickinson State Park along the Old Dixie Highway roadbed. The path will cross the tracks; ensure gates are installed appropriately.
4. Provide documentation for incorporating, at every highway crossing, safety upgrades such as: flashing lights; signage and pavement markings; median barriers; FEC-maintained vehicle presence detection; and a four quadrant gate that blocks both sides of each traffic lane. The 30% plans do not incorporate these upgrades.
5. Provide detailed construction plans that document the modifications necessary to ensure safe pre-emption of vehicular traffic at all crossings where traffic signals are located at an adjacent intersection (both during and after construction). Provide advanced pre-emption or an analysis that documents advanced pre-emption is not warranted.
6. School traffic on SE Bridge Road queues at the traffic signal at SE Gomez Avenue in the morning when school is in session. In addition to traffic created by student drop offs at the two schools, service workers travel eastbound on SE Bridge Road in the morning to work on Jupiter Island. The traffic often queues over the tracks and remains stationary through several signal cycles. Provide FEC-maintained vehicle presence detection.



SE Bridge Road – Queued traffic on rail while pedestrian walks by



SE Bridge Road – Queued traffic on rail

7. During the Martin County Field Diagnostic site visits on February 28th, there were several instances in the Hobe Sound area where vehicles stopped on the crossing over SE Dixie Highway with boat trailers or yard trailers extending over the tracks. Provide appropriate sensors and safety devices to prevent vehicles from getting trapped between gates.
8. Given the addition of the second track at nearly all of the highway grade crossings the R8-8 (DO NOT STOP ON TRACK) sign should be placed on the near side of the tracks rather than the far side.
9. Provide further analysis of air quality degradation that will occur as a result of the 285% increase in delay at the 28 rail crossings. The average delay at the crossings today is 2.9 minutes per hour and that the proposal anticipates 8.3 minutes per hour. Over 2,900 vehicles pass through the intersection of SR-714 (SE Monterey Road) and CR-A1A (SE Dixie Highway) during peak hour. How many of these will experience further delay? What effect will the delay have on the air quality?

	Time to activate & close the gate (sec)	Avg. train length (ft)	Avg. train Speed (mph)	Time to clear (sec)	Time to raise gate (sec)	Avg. time to activate & clear (sec)	Cross per day	Closure (min /day)	Cross per hour	Max delay per hour (min)	
2019 No Action											
Freight	30	8150	32	174	15	219	14	51	1	3.6	125%
2019											
Freight	30	8150	37	150	15	195	22	72	2	6.5	
Passenger	30	900	80	8	15	53	32	<u>28</u> 100	2	<u>1.8</u> 8.3	283%
2014											
Freight	30	6100	32	130	15	175	14	41	1	2.9	

10. Provide further analysis of the Level of Service (LOS) at intersections. The DEIS analyzed the SR-714 (SE Monterey Road) rail crossing independent of increased degradation of the intersection LOS on SR-714 (SE Monterey Road) at SR-5 (US-1 / SE Federal Highway), which is less than a quarter-mile away. The proposed second track and siding will further shorten this offset. During the peak hour in 2013, there were over 2,900 vehicles passing through the intersection

of SE Monterey Road and SE Dixie Highway and 6,000 vehicles passing through the intersection of SE Monterey Road and US-1 / SE Federal Highway. Today's freight train passages at SE Dixie Highway require preemption of the traffic signal at US-1 / Federal Highway. Furthermore, the analysis in the DEIS is based on AADTs for the arterial corridors that are not published by Martin County. The 2013 AADT was 23,400 on SE Monterey Road and 21,500 on SE Indian Street. The 2019 projected volumes should be used in the analysis (22,500 and 25,300, respectively). These volumes are significantly higher than the volumes analyzed (see Exhibit B – Annual Average Daily Traffic at FEC crossings).

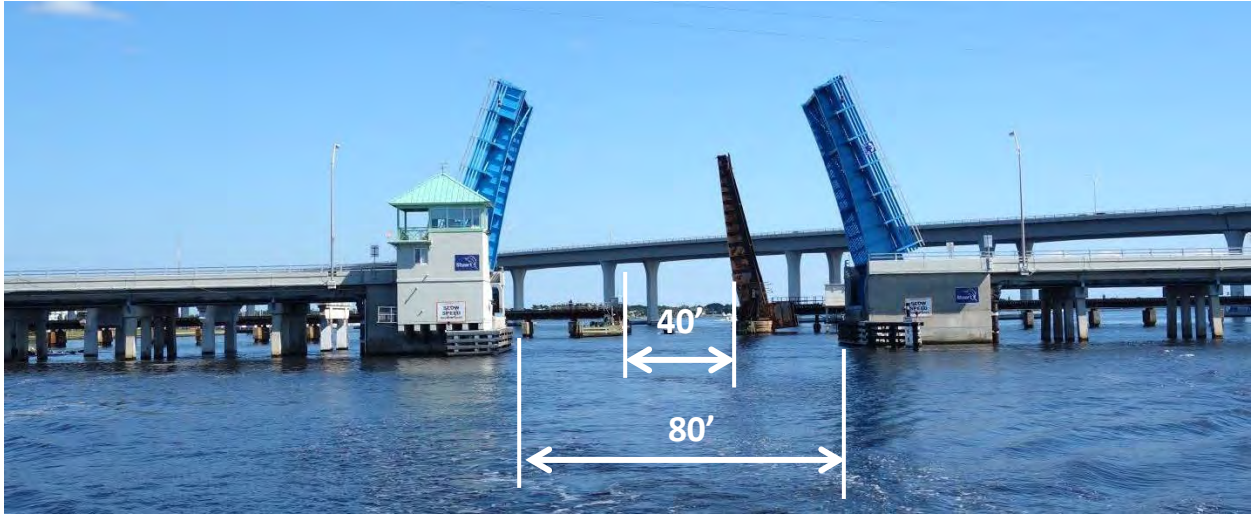
11. There is historic and heavy improvised foot traffic across the rail in several locations where residential communities gain access to commercial services. Given the anticipated passenger rail speeds of 110 mph, provide safe and formal pedestrian crossings at these locations.
12. Provide detailed profile grade lines of the roadway crossings; it must be determined whether adjacent intersections will have to be raised or plateaued to accommodate the addition of the second track.
13. The Track Chart in Appendix 3.3B-4 has a note at Mile Marker 268+3364 (SE Dixie Highway at the VFW crossing) "LOOK TO CLOSE". SE Dixie at Highway is designated SR A1A; this is a County Road and closing the road/crossing at this location is not an option.
14. In addition to incorporating the safety upgrades identified above, revise the plan sheets as follows:

Sheet No.	Revision
24-D	<ol style="list-style-type: none"> 1. change reference from City of Jensen Beach to Unincorporated Martin County 2. rotate the proposed gates so they are parallel with the tracks 3. relocate the proposed gate so it is within the FEC right-of-way or provide documentation from the Florida Inland Navigation District that they will permit the placement of the gate at the proposed location
25-D	<ol style="list-style-type: none"> 1. change reference from City of Jensen Beach to Unincorporated Martin County 2. rotate the proposed gates so they are parallel with the tracks
26-D	1. change reference from City of Jensen Beach to Unincorporated Martin County
27-D	<ol style="list-style-type: none"> 1. change reference from City of Jensen Beach to Unincorporated Martin County 2. correct the spelling of NE Jensen Beach Boulevard 3. relocate the proposed gates so they are within FEC right-of-way or negotiate a lease agreement with Martin County for placement within its right-of-way
28-D	1. change reference from City of Jensen Beach to Town of Ocean Breeze
29-D	1. change reference from City of Jensen Beach to Unincorporated Martin County
30-D	<ol style="list-style-type: none"> 1. change reference from City of Jensen Beach to Unincorporated Martin County 2. remove reference to SR A1A 3. rotate the existing and proposed gates so they are parallel with the tracks
31-D	1. change reference from City of Jensen Beach to City of Stuart
33-D	1. change reference from SW 2 nd Street to SW Joan Jefferson Way
34-D	<ol style="list-style-type: none"> 1. remove reference to SR A1A 2. rotate the proposed gates so they are parallel with the tracks and within FEC right-of-way

Sheet No.	Revision
35-D	1. rotate the proposed gates and cantilever so they are parallel with the tracks and also provides a guard for the pedestrian traffic that crosses CR-A1A (SE Dixie Highway) through the channelizing right turn island
36-D	1. consider the installation of a queue cutter on SE Florida Street for westbound traffic 2. change reference from SR A1A to CR-A1A
37-D	1. rotate the proposed gates so they are parallel with the tracks 2. change reference from SR A1A to CR-A1A
38-D	1. change reference from City of Stuart to Unincorporated Martin County 2. rotate the proposed gates and cantilever so they are parallel with the tracks and within FEC right-of-way 3. include pre-emption for southbound left turning traffic on SR-5 (US-1 / SE Federal Highway) 4. change reference from SR A1A to CR-A1A
39-D	1. change reference from City of Stuart to Unincorporated Martin County 2. rotate the proposed gates so they are parallel with the tracks and within FEC right-of-way 3. consider the installation of a queue cutter on SE Florida Street for westbound traffic
40-D	1. change reference from City of Stuart to Unincorporated Martin County
41-D	1. change reference from City of Stuart to Unincorporated Martin County
42-D	1. change reference from City of Stuart to Unincorporated Martin County 2. rotate the proposed gate so it is parallel with the tracks
43-D	1. change reference from City of Stuart to Unincorporated Martin County 2. rotate the proposed gate and cantilever so they are parallel with the tracks and with FEC right-of-way
44-D	1. change reference from City of Stuart to Unincorporated Martin County 2. rotate the proposed gate so it is parallel with the tracks 3. change reference from SR A1A to CR-A1A
45-D	1. change reference from City of Hobe Sound to Unincorporated Martin County 2. consider the installation of a queue cutter on SE Osprey Street for westbound traffic 3. change reference from SR A1A to CR-A1A
46-D	1. change reference from City of Hobe Sound to Unincorporated Martin County
47-D	1. change reference from City of Hobe Sound to Unincorporated Martin County 2. consider the installation of a queue cutter on SE Pettway Street for westbound traffic
48-D	1. change reference from City of Hobe Sound to Unincorporated Martin County
49-D	1. change reference from City of Hobe Sound to Unincorporated Martin County 2. change reference from SR A1A to CR-A1A
50-D	1. change reference from City of Hobe Sound to Unincorporated Martin County
51-D	1. change reference from City of Jupiter to Town of

Navigation

1. Table 5.1-1 in the Navigation Discipline Report in the Draft Environmental Impact Statement (DEIS) Appendix has incorrect information. The horizontal clearance between the fenders of the Dixie Highway Bridge No. 89003 (Old Roosevelt Bridge) is 80 feet; the table indicates 58 feet. The horizontal clearance between the fenders of the St. Lucie River Rail Bridge is approximately 40 feet; the table indicates 50 feet.



Horizontal Clearance

2. The channel for the Rail Bridge and the two vehicular bridges are skewed making navigation difficult.
3. Two-way boat traffic is able to navigate under the New Roosevelt Bridge (US-1 / SW Federal Highway) and under the Old Roosevelt Bridge (SW Dixie Highway); however, the Rail Bridge is located between these two bridges and given its horizontal clearance, boats are restricted to navigate in single file, which reduces the number of vessels in the queue that are able to pass through before the next closure; the queue will continue to increase with increase closures.



Single File Traffic Through St. Lucie River Railway Bridge

4. At the Federal Railroad Administration (FRA) public meeting on October 30, 2014, a simulation model was displayed that was designed to be used for vehicle traffic. The model was used to calculate the number of boats that would clear the Rail Bridge through each open cycle. The